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**THE IMPACT OF PERCEIVED WEBSITE  
QUALITY ON CUSTOMER SATISFACTION IN  
KUALA LUMPUR, MALAYSIA**

**TIONG LI LI**

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CUSTOMER SATISFACTION IN KUALA LUMPUR,  
MALAYSIA**

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**UUM**  
Universiti Utara Malaysia

**MSc (Mgt)  
2019**

**MASTER OF SCIENCE (MANAGEMENT)  
UNIVERSITI UTARA MALAYSIA  
December 2019**

**THE IMPACT OF PERCEIVED WEBSITE QUALITY ON CUSTOMER  
SATISFACTION IN KUALA LUMPUR, MALAYSIA**



**By  
TIONG LI LI**

**Thesis Submitted to  
School of Business,  
Universiti Utara Malaysia,  
in Partial Fulfillment of the Requirement for Master of Science (Management)**



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## ABSTRACT

The rapid growth of internet around the world has opened new marketplace and revolutionized the process of buying and selling goods. As a result, online purchasing or shopping is developed for better shopping convenience. However, to continuously sustain the online business, business organizations have faced many new challenges in satisfying the needs of their customers who are increasingly expecting higher quality services, more time saving, more online security, and more convenience. From the previous literature, website quality has been recognized as an important indicator of customer satisfaction. This study considered five website quality factors which include aesthetics and marketing mix (referring to content of the website), usability and interactivity (referring to functionality of the website) and online trust (psychological factor). This study applied a quantitative cross-sectional approach to investigate the perception of online shoppers on website quality in accordance to the five factors, and subsequently examine their respective impact on customer satisfaction. This study considered a total of 385 samples from 11 districts in Kuala Lumpur. A closed-ended questionnaire is created using Google Form platform for data collection and the samples are collected utilizing non-probability quota sampling technique. From the findings, it is revealed that online shoppers in Kuala Lumpur, Malaysia are expressing a positive perception towards the five website quality factors and online satisfaction. It is also revealed that each website quality factor is significantly correlated with customer satisfaction. In this aspect, online trust factor demonstrated the strongest while aesthetics factor showed the weakest correlation with customer satisfaction. More importantly, when all the five quality factors are applied as a group, online trust factor is found to be the strongest predictor while usability is the weakest predictor of customer satisfaction. The findings presented in this study can provide an evaluation of the extent to which the content, functional and psychological factors of the website are meeting the online consumers' demand. The knowledge obtained is helpful to online vendors in understanding their current position against competitors, identify their weaknesses and subsequently address the key factors affecting consumer's purchasing behaviour that can potentially help them to retain existing customers and attract new online shoppers.

**Keywords:** customer satisfaction, online shopping, perceived website quality, website quality factors.

## ABSTRAK

Pertumbuhan pesat internet di seluruh dunia telah membuka pasaran baru dengan mencipta revolusi proses membeli dan menjual barangan. Ekoran daripada itu, membeli atau pembelian atas talian telah dibangunkan demi memudahkan proses membeli-belah. Namun, untuk mengekalkan perniagaan atas talian, organisasi perniagaan telah menghadapi pelbagai cabaran baru dalam memenuhi permintaan pelanggan mereka yang semakin mengharapkan perkhidmatan yang berkualiti tinggi, lebih menjimat masa, lebih selamat dan lebih memudahkan. Hasil tinjauan kajian sebelumnya, kualiti laman sesawang telah diiktiraf sebagai petunjuk yang penting terhadap kepuasan pelanggan. Kajian ini mengambil kira lima faktor kualiti laman sesawang, iaitu estetika dan bauran pemasaran (merujuk kepada kandungan laman sesawang), kebolegunaan dan interaktiviti (merujuk kepada fungsi laman sesawang) dan kepercayaan atas talian (faktor psikologi). Kajian ini menggunakan pendekatan keratan rentas kuantitatif untuk menyiasat persepsi pembeli atas talian berkenaan dengan kualiti laman sesawang mengikut lima faktor, dan seterusnya meneliti impak terhadap kepuasan pelanggan. Kajian ini mengambil kira jumlah keseluruhan sampel sebanyak 385 sampel dari 11 daerah di Kuala Lumpur. Soal selidik tertutup dibuat dengan menggunakan platform Google Form untuk pengumpulan data dan sampel dikumpulkan menggunakan teknik persampelan kuota bukan kebarangkalian. Dari penemuan ini, adalah didapati bahawa pembeli atas talian di Kuala Lumpur, Malaysia mempunyai persepsi positif terhadap lima faktor kualiti laman sesawang tersebut dan kepuasan atas talian. Ia juga mendedahkan bahawa setiap faktor kualiti laman sesawang sangat berhubung kait dengan kepuasan pelanggan. Dalam aspek ini, faktor kepercayaan atas talian menunjukkan perhubungan yang paling ketara manakala faktor estetika menunjukkan perhubungan yang paling lemah dengan kepuasan pelanggan. Yang lebih penting, apabila kesemua lima faktor kualiti tersebut diterapkan sebagai satu kumpulan, adalah didapati bahawa faktor kepercayaan atas talian merupakan peramal kepuasan pelanggan yang paling ketara manakala faktor kebolegunaan merupakan peramal kepuasan pelanggan yang paling lemah. Penemuan yang dibentangkan dalam kajian ini dapat memberi suatu penilaian sejauh mana faktor kandungan, fungsi dan psikologi laman sesawang ini boleh memenuhi permintaan pengguna atas talian. Pengetahuan yang diperolehi dapat membantu pembekal atas talian untuk memahami kedudukan mereka sekarang berbanding dengan pesaing, mengenal pasti kelemahan mereka dan seterusnya menangani faktor utama yang mempengaruhi tingkah laku pengguna yang berpotensi membantu mereka dalam mengekalkan pelanggan sedia ada serta menarik lebih banyak pembeli atas talian yang baru.

**Kata kunci:** kepuasan pelanggan, pembelian atas talian, tanggapan kualiti laman sesawang, faktor kualiti laman sesawang.

## ACKNOWLEDGEMENT

Thanks God. Thanks for His blessing and guidance throughout the completion of my research study. Without Him, I may have lost my direction and strength to complete the study.

Next, I would like to take this opportunity to express my appreciation and sincere gratitude to my research supervisor Dr. Pujawati binti Md Said for her continuous support throughout the completion of this research study, for her motivation, enthusiasm, patience and immense knowledge. Her guidance has helped me in conducting this study and writing of this thesis. I could not have imagined having a better motivator and supervisor for my research study.

To my classmates, I thank you for your help in completing the thesis writing, for the sleepless night we all worked together before the deadline, and of course for all the fun we have in the last two years.

Not to forget my working colleagues who understand my situation where taking part time study is not an easy task. I am so lucky to have all the colleagues who continuously giving their support whenever I need.

Last but not least, I would like to thank my family for their continuous support, care and love. Without them by my side, I may not be able to complete the study.



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## **CHAPTER 1**

### **INTRODUCTION**

#### **1.0 Background of the Study**

In the present world, it is undeniable that the advancement of technology has improved our living standard. Concurrently, utilization of internet has extensively grown around the world. Based on the Internet World Stats, a statistical report in year 2018 reports that the internet users are the highest in Asia as compared to the other regions. In specific, the region of Asia is the major contributor of internet users in the world which covers up to 49 %, and followed by second highest Europe region which contributes only 16.8 % of internet users. In addition, Malaysia is among the top Asian internet countries, where it is ranked at the 11<sup>th</sup> position with a total number of 25 million of internet users. Undoubtedly, the usage of internet is increasing in a fast rate (Internet World Stats, 2018).

Fortunately, the increased internet utilization around the world has opened new marketplace and revolutionized the process of buying and selling goods. As a result, online purchasing or shopping is developed for better shopping convenience. Online purchasing has created new opportunity for both consumers and business organizations where it has changed consumers buying behaviour and the business world in a more convenient and systematic manner.

Generally, online purchasing is a kind of electronic commerce (E-commerce), in which activity of purchasing of goods is performed on online platform over the internet by

using electronic devices such as smart phone, laptop, and many more. With online platform, customers can acquire any products and services at anytime and anyplace, when internet access is available. They are no longer needed to set up time to visit a physical store, trap in traffic just to search for a parking lot, stress with the crowded environment and wait in the long queue to settle the payment. Consumers have gradually gotten familiar with the new innovation and learning to adapt to the everyday changing online purchasing platforms. Fortunately, technology is advancing every day which provides more and improves interactive functions of websites and thus consumer's experience. Consumers will particularly learn to take advantage of the online business environment to gain maximum benefits and eventually their new purchasing behaviour will be shaped.

For many consumers, purchasing or shopping online has actually become part of their lives. In Malaysia, online shoppers have increased rapidly with the advancement of internet services. A survey has been conducted by Nielson Company in year 2011 to review on the trends of online purchasing in Malaysia. The findings of the survey revealed that approximately 1.1 million Malaysians have been reported to purchase online; spending RM1.8 billion in total in that particular year and still has the potential to increase further (Goh, 2011).

With increasing number of business organizations entering online marketplace, more online purchasing websites options are made available to the consumers. At the present day, to purchase a certain product, a consumer may find variety of online vendors selling the similar product. In this case, the consumer will normally compare identical products



which are selling at different websites and finally decide to purchase at one of the websites. The question then arises, “What are factors that can explain the differences in online consumers’ choice-making among online shoppers?” Few examples of technical factors may include quality of online purchasing system, reliability, internet speed, system security, and meanwhile non-technical factors include psychological issues such as to consumer privacy, trust and personal resistance (Monsuwe, 2004; Lin, 2011; Lim, 2016). Hence, one of the purposes to conduct this study is to identify the determining factors of consumer’s preference on a particular website over the others, focusing on the website quality factors.

Business organizations cannot exist without having consumers as their key players. Hence, satisfying the customer’s needs is essential for their survival. As reported by Li (2014), satisfaction has become an important issue while corporations introduce online service. Basically, customer satisfaction is the state of contentment when products or services provided by business organization fulfill expectations of consumers (Jiradilok, 2014). Additionally, customer satisfaction also involves experience gained by customers throughout the process of purchasing goods. Creating and delivers value to customers have always been the philosophy of every business organization. Those which are able to satisfy their customers will eventually gain good reputation in the industry. Besides, customer satisfaction is also essential key in establishing continuous relationship with the customers and to build up loyal customers who retain their purchases (Mohsan *et al*, 2014). However, to build up customer trust and satisfaction has never been easy. It will definitely need a complete understanding on their changing purchasing trends and continuous business strategy improvement in addressing those changing demands.

From the basis of online purchasing, consumers are actually spending time to shop through online platform which they believe that it will provide them greater benefits and convenience (Monsuwe, 2004). Hence, it is normal that they expect the same experience or perhaps better experience from conventional in-store shopping. Since the first experience gained by customers through online purchasing is the website experience itself, hence the quality of website plays a significant role in ensuring satisfaction of customers. In this regard, business organization who wishes to venture into online business must act smarter and be able to offer best online customer experience, and this should be started by ensuring best quality of online purchasing website. To learn about customers' online experience, one obvious channel utilized by online vendors is via the review platform provided at the website itself. From the feedback provided, online vendors can actually find out their weaknesses and areas that require further improvement, so that they can continue to provide services which are desired by the customers.

Other than collecting feedback, continuous study is required to learn the impact of online website on the responses of consumer towards online purchasing such as perceived website quality and satisfaction (Lee & Lin, 2005). Understanding the predictors of website quality and satisfaction is important for both online vendors and researchers. More importantly, in the context of online purchasing, previous literature has discovered that website quality is an important predictor of online purchasing effectiveness that eventually leads to customer satisfaction (Wong, 2014; Noronha & Rao, 2017). In an earlier study conducted by Constantinides (2004) has proposed a multidimensional website quality framework which comprises of three categories of key

factors as that determine quality of a website: content (comprises of aesthetics and marketing mix); functional (comprises of usability and interactivity); and psychological (or more commonly known as online trust) factors. In other words, a well-developed online purchasing website should be able to attract attention of customers, provide all the online purchase information that is needed by customers, smoothly direct customers towards completion of online purchase, and most importantly build customer trust.

Therefore, with reference to these website quality factors, this study is conducted to investigate on how they are linked to customer satisfaction. The outcomes of this study serve as useful up-to-date information to website developers, online sellers and business organizations in further enhancing their business strategy for the benefits of consumers.

### **1.1 Problem Statement**

Purchasing over the internet platform has become a useful alternative for consumers where it is more convenient than the conventional in-store shopping, which is usually associated with large crowd, traffic jam, limited shopping time, limited parking space and many others. However, along with continuous advancement of online technology, the number of scams, cheating and fraudulent practices also has increased. Such dishonest activities have created fear in the minds of customers and adversely impacted their confidence towards online purchasing. These issues have started long time ago, for example, Haque and Khatibi (2007) revealed that people in Malaysia believe the payment method via online platform are not secured enough and are also worried about disclosure and misuse of private information. As described earlier, website quality is reported in previous literature to be an important predictor of online purchasing

effectiveness that eventually leads to customer satisfaction (Wong, 2014; Noronha & Rao, 2017). Hence, to regain their confidence and trust towards online purchasing, the quality of online purchasing website has to be ensured, and this would require up-to-date information on consumer's perception towards website quality.

Although previous literature have studied about the effects of website quality on customers satisfaction, the considered determinants are rather general and they are mostly one-dimensional such as website design, content and structure (Wong, 2014); availability, adaptability, reliability, usability and response time (Nosrati, 2008); usability and functionality (Bai, 2008); and website design and system quality (Noronha & Rao, 2017). Nevertheless, Constantinides (2004) has proposed a detailed multidimensional website experience framework which stated that website quality is influenced by three groups of quality factors: content (comprises of aesthetics and marketing mix); functional (comprises of usability and interactivity); and psychological (or online trust) factors. Subsequently, the similar multidimensional framework has once again been applied by Li (2014) to study the important factors that influence online shoppers' preference to China online vendors. The findings from both studies have revealed and supported that the content, functional and psychological elements are the important determinants of website quality perceived by customers. However, studies that further examine the linkage between these multidimensional website quality factors and satisfaction are very limited. Hence, to fill this gap, this study aimed to determine whether the three groups of quality factors, based on Constantinides's (2004) website experience framework, are directly associated with customer perceived website quality and linked to customer satisfaction.

Besides, according to Helversen *et al.* (2016), reviews / ratings of online purchasing website provided by customers reflects their actual experience and happening with the website, i.e. their level of satisfaction with the online services. Generally, the online reviews / ratings serve as guide or reference to the consumers to understand the products and services that they intended to purchase. Online review / rating (regardless of positive or negative) has been reported to post significant impact on people's purchasing behavior and intentions where positive reviews / good rating generally attract customers and improve consumer's loyalty, and vice versa (Mo, Li, & Fan, 2015; Helversen *et al.*, 2016). Hence, to many online customers, searching online reviews / ratings is an important step before buying from an online website. However, as reported on Trustpilot.com (n.d.), the performance of many online purchasing websites such as Lazada, Shopee, 11street (current rebranded as PrestoMall), is still rated as average and below. Hence, it is crucial to investigate the factors leading to the poor ratings.

Moreover, according to Monsuwé *et al.*, (2004), customer's behaviour can constantly be changed by geographic, demographic and security factors. Most of the available studies that study about the effect of website quality on customer satisfaction are conducted at location other than Malaysia such as in China (Bai, Law & Wen, 2008), Iran (Nosrati, 2008), Taiwan (Lin, Wu & Chang, 2011) and India (Jayasubramanian, Sivasakthi & Priya, 2015; Noronha & Rao, 2017). Nevertheless, in Malaysia, there are only few studies related to online customer satisfaction. However, the studies focused on the factors other than website quality itself such as advertisement, product quality, brands, and customer services (Haque & Khatibi, 2007; Momtaz *et al.*, 2011). Therefore, there is a need to continuously investigate their changing purchasing trend, willingness to

patronize an online store, perception and satisfaction towards online purchasing, especially in Malaysia. In today's competitive business environment, having latest information on customer satisfaction is the answer to profitability and success of business organizations.

## **1.2 Research Questions**

The research questions (RQs) of this study are as follows:

RQ1: What is the level of customer satisfaction towards online purchasing?

RQ2: Is the website aesthetics factor correlate to customer satisfaction towards online purchasing?

RQ3: Is the website marketing mix factor correlate to customer satisfaction towards online purchasing?

RQ4: Is the website usability factor correlate to customer satisfaction towards online purchasing?

RQ5: Is the website interactivity factor correlate to customer satisfaction towards online purchasing?

RQ6: Is the website online trust factor correlate to customer satisfaction towards online purchasing?

RQ7: What is the effect of website aesthetics, marketing mix, usability, interactivity and online trust on customer satisfaction towards online purchasing.

### **1.3 Research Objectives**

The aim of this study is to investigate the correlation between factors of website quality perceived by customers and the level of satisfaction in the context of online purchasing in Kuala Lumpur, Malaysia. Specifically, the research objectives (ROs) to address the aim are formulated as follows:

RO1: To investigate the level of customer satisfaction towards online purchasing.

RO2: To examine the correlation between website aesthetics factor and customer satisfaction towards online purchasing.

RO3: To examine the correlation between website marketing mix factor and customer satisfaction towards online purchasing.

RO4: To examine the correlation between website usability factor and customer satisfaction towards online purchasing.

RO5: To examine the correlation between website interactivity factor and customer satisfaction towards online purchasing.

RO6: To examine the correlation between website online trust factor and customer satisfaction towards online purchasing.

RO7: To examine the effect of website aesthetics, marketing mix, usability, interactivity and online trust on customer satisfaction towards online purchasing.

### **1.4 Limitations of Study**

This study is conducted taking into consideration several limitations. Firstly, is about the constraint in terms of geographical coverage. Since this study is conducted in Kuala Lumpur, the capital of Malaysia, hence the findings can only describe the perception of customers living in the city area of Malaysia. People living in town and village and even

other countries have different lifestyle, culture and needs which might lead to different perception of life. Hence, the result obtained from this study might not appropriate to be utilized as the assumption for the viewpoints of all people over the world.

Besides that, questionnaires are used for data collection in this study due to the reason that they are simple and convenient for fast data collection. Hence, some additional data or information has actually been omitted because the targeted respondents are restricted to certain range of answers provided in the distributed questionnaires. The additional information can only be obtained through qualitative data such as in-depth interview and observation. Therefore, the combination of quantitative and qualitative method is crucial for more reliable and accurate findings. However, it is impossible to implement both methods within limited time period.

Moreover, this study focuses solely on website quality as the main factor that affects customer satisfaction towards online purchasing, taking into consideration content, functional and psychological elements of the online purchasing website. Due to limited time period, other important factors that may affect customer satisfaction such as brand loyalty, social influences, cultural factors and personal characteristics are not included in this study. This may lead to inaccuracy result's generation.



## 1.5 Definition of Terms

This section defines the important terms which are utilized in this study.

### 1. Online Purchasing

Online purchasing or online shopping or E-commerce is the conduct of business via internet using computer-mediated tools and it usually involves exchanging products / services without the needs of face to face meeting unlike transaction done in traditional approach (Jiradilok *et al.*, 2014).

### 2. Customer Satisfaction

The feeling of contentment or satisfaction with the products or services delivered by a particular online purchasing website (Xu, 2017).

### 3. Perceived Website Quality

Customers' evaluation on the characteristics of a certain website's where the presented features are believed to be meeting their expectations and it reflects overall benefits of the website (Aladwani & Palvia, 2002). This study taking into consideration a total of five website quality factors, which include aesthetics and marketing mix (referring to content of the website), usability and interactivity (referring to functionality of the website) and online trust (psychological factor).

### 4. Aesthetics (Content Factor)

The beauty of an online website which is created by using proper combination of aesthetics elements such as design, colour, page layout, animation, image, graphical content (Park *et al.*, 2007).

5. Marketing Mix (Content Factor)

The marketing mix elements presented on an online website such as price, product elements, logistics and communication channel which can create good website's image (Li, 2014).

6. Usability (Functional Factor)

The functionality feature of an online website which allows users to complete any tasks regarded to online purchasing with minimal attempt (Nah & Davis, 2002).

7. Interactivity (Functional Factor)

The functionality feature of an online website which allows and supports the communication process between users and online vendor as well as other users who have similar interests (Constantinides, 2004).

8. Online Trust (Psychological Factor)

The credibility of online website which helps online customers who are unfamiliar with the online vendor or unfamiliar with online transactions to overcome fears of fraud and doubts (Constantinides, 2004).

## **1.6 Organization of Thesis**

This thesis is organized into five chapters. Chapter 1 presents a background of research area and associated with problem discussion, research questions and corresponding objectives, definition of important terms, scope and limitations of study.

Chapter 2 presents the theories and existing literature related to this study. Special focus is given to the five website quality factors considered and existing model that links those factors with customer satisfaction.

Chapter 3 provides detailed idea on the systematic method flow of this study starting with the research framework applied, followed by hypotheses formulated, adopted research design, operational definition of main variables, sampling technique, procedure for data collection, reliability test of measurement tool and end with the details on the type of data analysis which will be performed.

Chapter 4 thoroughly discusses the important findings obtained from data collection following an analysis of the distributed questionnaires. The presented findings generally cover normality test results, demographic characteristics of respondents, descriptive data, and connection between independent and dependent variables.

Lastly, Chapter 5 concludes the important findings of this study, provides potential implications of this study and recommends possible future works.

## **CHAPTER 2**

### **LITERATURE REVIEW**

#### **2.0 Introduction**

This chapter reviews and discusses the existing literature related to the main focus of this study: website quality factors and online consumer satisfaction. It started with the interpretation of e-commerce / online purchasing. Next, customer satisfaction towards online purchasing is thoroughly interpreted with special focus on the related theory. Subsequently, topic on website quality factors is described. In this regard, website attributes that are relevant to the five website quality factors: aesthetic, marketing mix, usability, interactivity and online trust, are presented. The chapter ends with a brief summary section summarizing all the important points that have been discussed.

#### **2.1 Online Purchasing (E-commerce)**

E-Commerce or online purchasing is a part of an overall e-business strategy which involves the activities of buying and selling of goods or services over the internet. The main purpose of e-commerce system is to add more revenue streams using the advantage of internet, to build and sustain relationships with partners and clients and to improve the overall efficiency of the business process (Essay, 2017). The internet itself has actually played the important role throughout the promoting and selling process on online platform and has made life convenient for the consumers and business organizations all over the whole world. E-commerce has been described as the transaction of products and / or services by means of electronic communications (Tian & Stewart, 2007).

Gunasekaran (2002) has suggested that the term e-commerce can be interpreted in a more thorough manner with respect to four perspectives: communication; business process; service, and online perspective. From communication perspective, e-commerce is referred as delivery of information, products/services or payments over telephone lines, computer networks or any other electronic means. Next, from business application point of view, e-commerce can be referred as the business transactions and flows that work automatically by utilizing of advantage of technology. Subsequently, in the context of service, e-commerce can be referred as a platform that answer to the desire of an organization in cutting service costs at the same time improving and maintaining the quality of goods and enhancing speed of service delivery. Lastly, from the typical interpretation of e-commerce (online perspective), e-commerce is the system that allows the act of buying and selling goods, services and information over the internet.

E-commerce contain two basic forms namely business-to-business (B2B) and business-to-consumer (B2C). B2B form of e-commerce is linked to the sale of goods and / or services, or even exchange of information among two or more business parties via the use of Internet, in a public or private exchange (Mockler, 2007). Meanwhile, in B2C e-commerce, companies sell products and services directly to consumers (Wang & Le, 2015).

From consumer viewpoint, e-commerce has brought upon the concept of online stores which sell products or services, and are systematically catalogued and conveniently made available for the benefits of customers, which has given rise to the common term online purchasing or shopping. Generally, online purchasing is a form of e-commerce

which involves the activity of purchasing of goods on online platform over the internet by using electronic devices such as smart phone, laptop, and many more. In this study, online purchasing is referring to B2C transactions only.

## **2.2 Customer Satisfaction**

For the target of business longevity, it has always been the main interest for business organizations to be able to gain new customers while retaining their existing customers. Hence, measuring customer satisfaction has gained increasing importance for business organization as it shows an indication on how successful the organization is at providing its unique products and/or services to the marketplace. The main reason is that satisfied customers are those who will repeat the purchase with the same organization again. Owing to its importance, consumer satisfaction is no longer a newly introduced concept and many studies have actually existed to learn about its antecedents and consequences (Ramasubbu, Mithas & Krishnan, 2008).

Similar to any other business operation, customer satisfaction is also one of the main targets of developing e-commerce because there is a belief saying that product quality, customer satisfaction and business profitability are strongly related (Fecikova, 2004). Figure 2.1 clearly illustrates the relationships between these elements. Nevertheless, in this study, only the linkage between quality and satisfaction will be investigated. In the context of online business, customer satisfaction is one of the key factors that leads to increasing customer retention, long-term intention to purchase, loyalty and longevity / further growth of online stores.

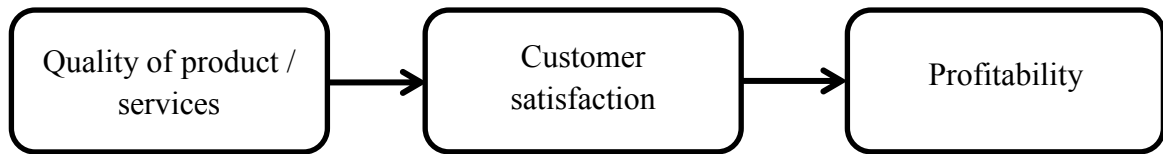


Figure 2.1

*Relationship between Quality, Satisfaction and Profitability*

Source: Fecikova, 2004

Early study on satisfaction has referred satisfaction as an evaluation performed after purchase process and is associated to a specific purchase decision (Churchill & Sauprenant, 1992). According to Kottler (2000), satisfaction is the feelings of pleasure or disappointment as a result of comparing perceived performance of a purchase product or outcome in accordance to a person's expectation. Meanwhile, Giese and Cote (2000) suggested that customer satisfaction can be identified by a response (cognitive or affective) that is connected to a particular focus (purchase product and / or experience) and it occurs at certain time (post-purchase or post consumption). A more thorough definition is suggested by Akrimi and Khemakhem (2014) where they interpreted satisfaction as the emotional answer following an experience of argument process between the acquired performance of a product with a form of comparison such as desires, expectations, promises, standards, etc. Nonetheless, many researchers agreed that customer satisfaction is an outcome variable of a service quality (Zeithmal, Bitner & Gremler, 2006). Hence, based on the interpretation given, one can view customer satisfaction as a perception and a degree of feelings (either good or bad). This also means that the state of satisfaction towards similar products and / or services will vary from person to person. Also, the level of satisfaction can be varied based on the other options the customer may have as comparison.

Owing to wide applications of internet technology, lots of efforts have been made on the topic of customer satisfaction in online environment (Isfandyari-Moghaddam, 2014). In this regard, the term “e-satisfaction” is more commonly applied where it generally reflects the emotional reaction of customers based on their cumulative online experience (Rodgers *et al.*, 2005). More specifically, according to Anderson and Srinivasan (2003), e-satisfaction is the contentment of customers with respect to their prior purchasing experiences with a given e-commerce organization. On the other hand, according to Kim (2005), e-satisfaction is recognized as the psychological evaluation performed by customers based on their accumulated experience throughout the purchase process and usage of the purchased product. Furthermore, in another similar study, Wen (2012) has demonstrated that customer’s satisfaction is a response resulted from customer’s purchase experiences. Hence, based on the reviewed interpretations, this study determines the level of customer’s satisfaction by considering two perspectives: (1) satisfaction based on searching and browsing experience; and (2) satisfaction based on purchase experience on a website.

### **2.3 Theory and Model Related to Customer satisfaction**

From the existing literature, theories which can serve as a foundation for different models of customer satisfaction has been well-established. For instance, the expectation-disconfirmation theory (Oliver, 1980) has served as the fundamental for formulating various satisfaction models. As illustrated in Figure 2.2, the theory contains four main elements: expectation, perceived quality, disconfirmation and satisfaction, where satisfaction is expressed as a function of disconfirmation which is also influenced by the effects of expectation and perceived quality. In another point of view, the model also



illustrate that the result of expectation is primarily observed through disconfirmation, but at the same time it can also post effect through perceived quality as supported by the many studies (Spreng & Page, 2001).

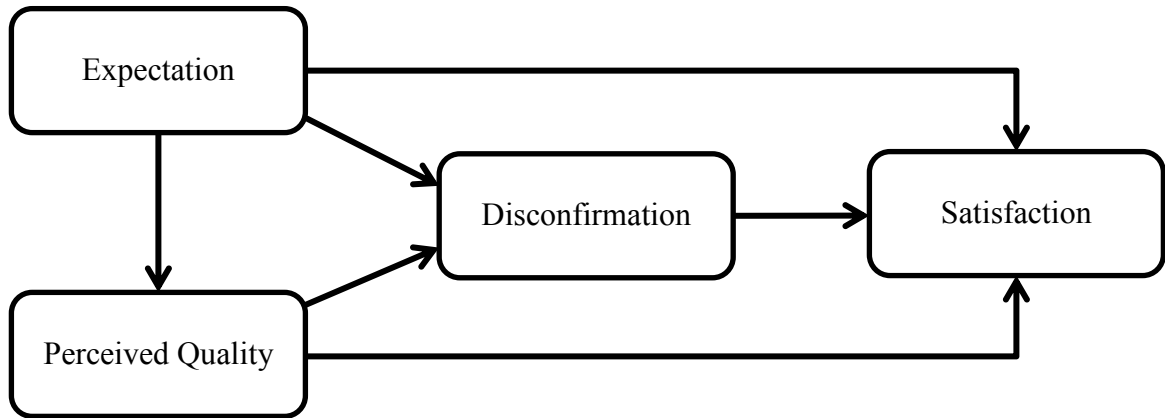


Figure 2.2  
*Expectation-disconfirmation Model*  
Source: Oliver, 1980

Expectation in this context refer to the features that a person predicts will be associated with a certain product / service. Meanwhile perceived quality is the perception of a person regarding the actual performance of that particular product / service. According to this theory, perceived quality is affected by pre-purchase and post-purchase expectations which in turn, affect satisfaction either directly or indirectly via disconfirmation (mediating). Disconfirmation is a judgement made by comparing a person's perception with his / her initial expectation. Hence, quality perceived by a person may either confirm or disconfirm expectation prior to making a purchase, and eventually satisfaction is positively correlated with expectations, perceived quality and the perceived extent of disconfirmation. For instance, if the perceived quality outperforms expectation, then disconfirmation will be positive, and it is believed to

eventually increase satisfaction. The opposite relation holds if perceived quality underperforms expectation where it reduces satisfaction. Satisfaction in this context is referring to the extent to which a person is pleased / satisfied with a particular product / service.

Another famous model that links the cause-and-effect of customer satisfaction is the American Customer Satisfaction Index (ACSI) model (Fecikova, 2004) as shown in Figure 2.3. According to this model, the elements that drive customer satisfaction include customer expectations, perceived quality, and perceived value and meanwhile the outcomes of satisfaction are customer complaints and customer loyalty. By comparing Figures 2.2 and 2.3, it can be noted that there is a similarity between the two presented models, i.e., customer satisfaction is affected by initial expectation and how customer perceive the quality / value of certain a product / service. Hence, showing the application of expectation-disconfirmation theory in this model. However, this model provides an additional interpretation of satisfaction as “things not going wrong”. This reflects the effect of customer complaints where large number of complaints will indicate that something must have gone wrong and causing dissatisfaction. Hence, this model concludes that to achieve true customer satisfaction, other than maintaining excellent quality of the product / service provided, reducing the number of complaints is equally important.

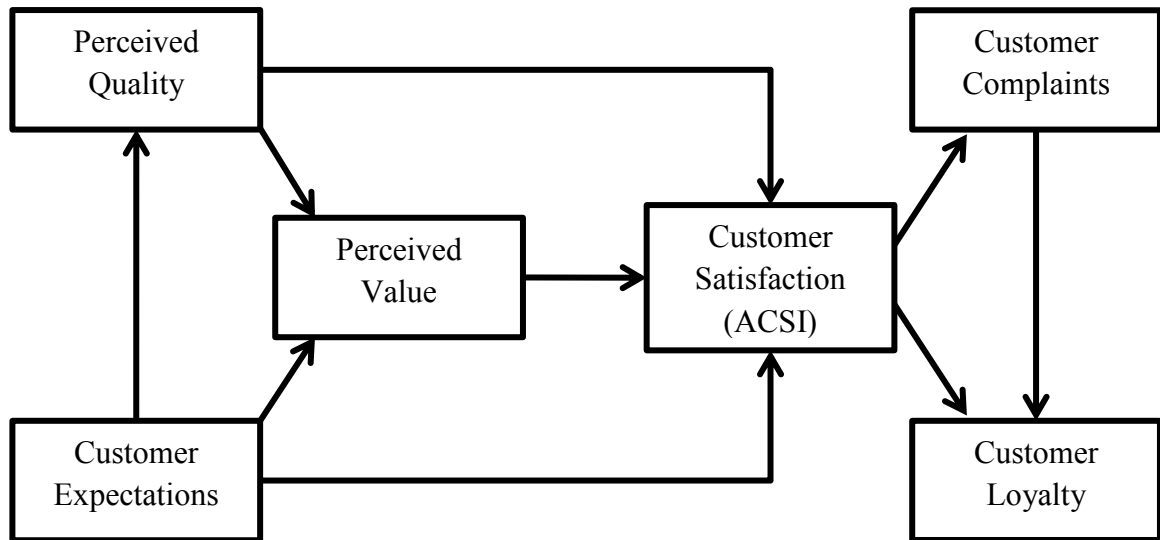


Figure 2.3  
*Model of American Customer Satisfaction Index (ACSI)*  
 Source: Fecikova, 2004

Another interesting model related to customer satisfaction is proposed by Lee and Lin (2005). It has been applied in Taipei, Taiwan to study perceptions of undergraduate students on e-service quality of online shopping. The proposed model as shown in Figure 2.4 proves that the five dimensions of e-service quality (trust, website design, personalization, responsiveness, and reliability) are directly linked to overall service quality and customer satisfaction, and eventually yield continuous purchase intentions. From their findings, among the five dimensions, trust is revealed to be the most significant predictor of perceived e-service quality and customer satisfaction. Moreover, from their study, online customers are revealed to be concerned about misuses of their personal information without proper having permission, and thus showing the significance of trust.

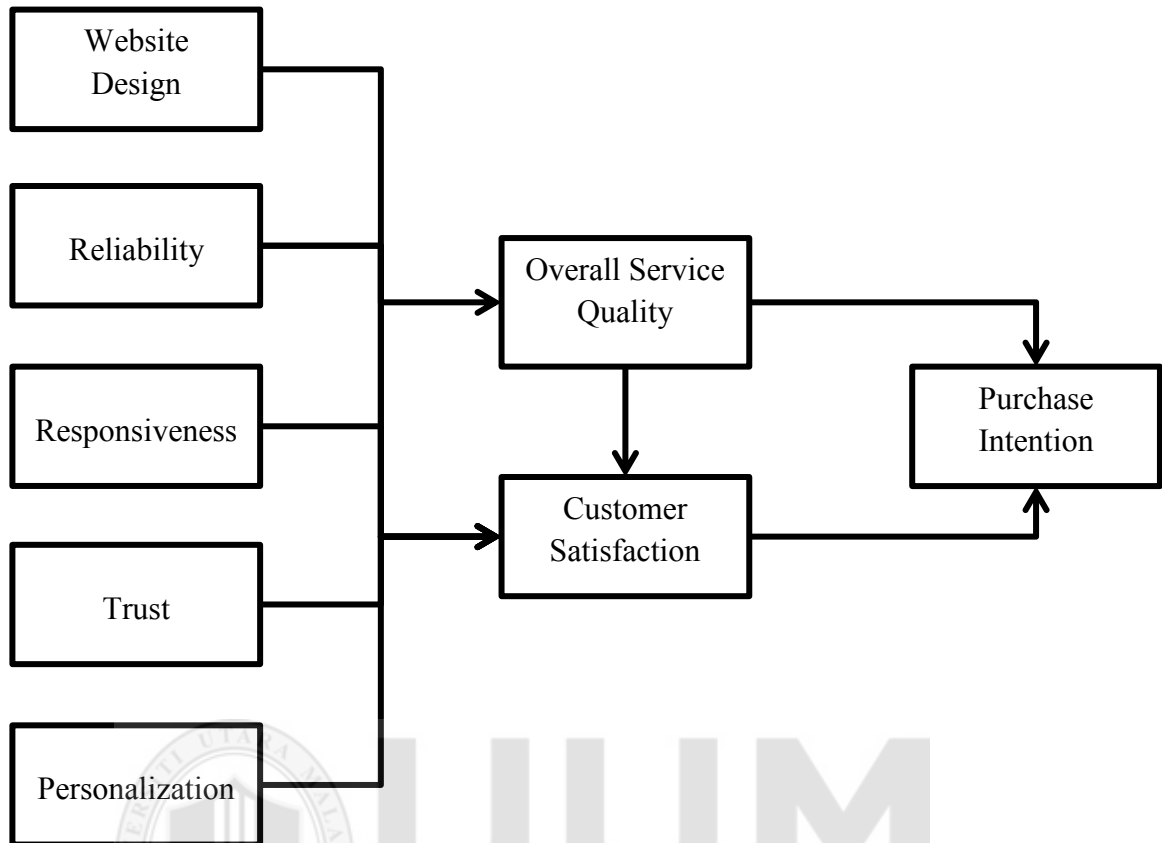


Figure 2.4  
*Relationship between Five Dimensions of Service Quality and Purchase Intention Mediated by Overall Service Quality and Customer Satisfaction*  
 Source: Lee and Lin, 2005

Similar to trust dimension, the reliability dimension is revealed as a significantly correlated with customer satisfaction. Providing accurate and updated information, punctual delivery services and secure online transaction are examples of reliability elements that need to be strengthen. Meanwhile, website responsiveness (such as searching speed and prompt feedback to customer inquiries) only mildly influence customer satisfaction. According to their findings, customers are only expecting high responsiveness from the delivery services but can tolerate a slower online transaction if the security is high. However, website design is reported to provide only a minor effect on customer satisfaction, but its importance should not be underestimated. In this regard,

they emphasized that, website should be designed with a visually appealing interface, and it should be readable to ease customers usage.

Another existing research model related to customer satisfaction is proposed by Donighi and Yousefi (2015), as shown in Figure 2.5. This model has been applied to study on the topic of customer satisfaction towards Pharmacies services in Tehran, Iran. According to this model, once again service quality and perceived value are directly affecting customer satisfaction (mediating variable) and meanwhile satisfied customers are those who will continue to purchase from the same organization. Perceived value in this context is the evaluation made to determine whether the benefits received is worthy of the costs spent. Hence, if the service quality is good and it is worthy of the costs spent, then customer will be satisfied. Furthermore, it is also revealed that there is a direct linkage (without going through satisfaction element) between service quality and perceived value with post-purchase intention.

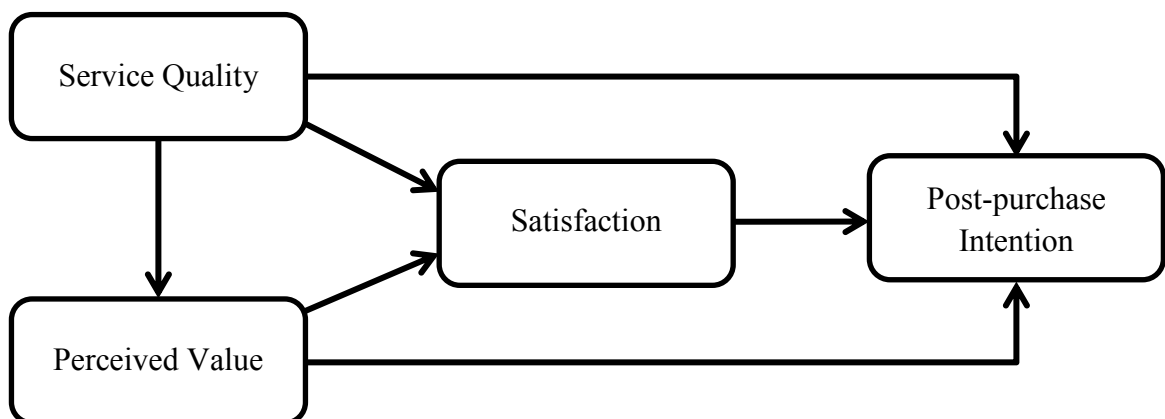


Figure 2.5

*Relationship between Service Quality, Perceived Value, Customer Satisfaction and Post-Purchase Intention*

Source: Donighi and Yousefi, 2015

One recent research model regarded to customer satisfaction is proposed by Hallak *et al.* (2018), as shown in Figure 2.6. The predictor elements considered in this model is very similar to the one presented in Figure 2.5, and it has been applied to study on tourism destination in Australia. Consistent with the findings obtained by Donighi and Yousefi (2015), this model has once again proved that perceived quality and perceived value are the two elements that directly influencing customer satisfaction. However, in this model, instead of linking satisfied customer to positive post-purchase intentions, satisfied customer is found to be positive correlated to brand loyalty or even loyalty to that particular organization. Nonetheless, perceived value is also shown to be mediating between perceived quality and loyalty. Furthermore, it is also revealed that there is a direct linkage between perceived quality and loyalty.

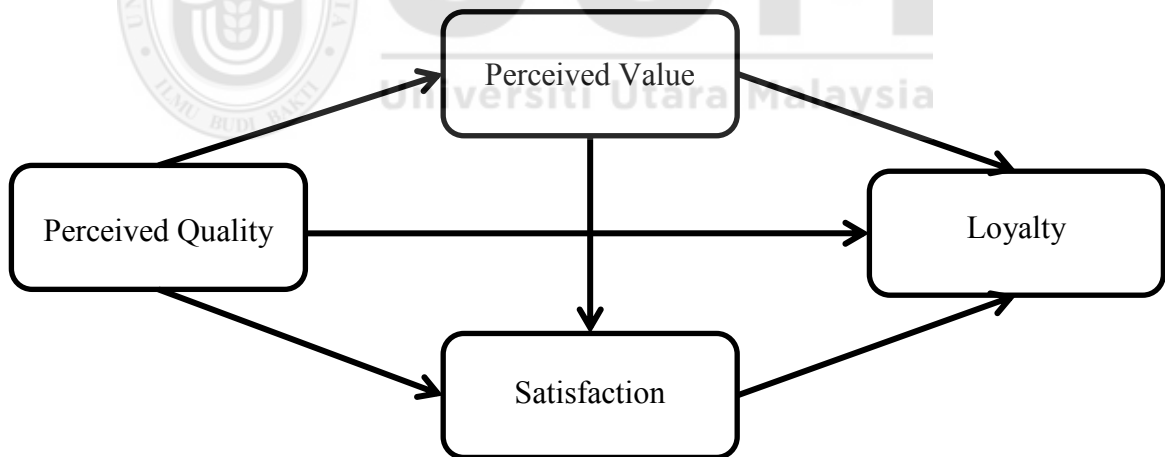


Figure 2.6

*Relationship between Perceived Quality, Perceived Value, Customer Satisfaction and Customer Loyalty*

Source: Hallak *et al.*, 2018

The presented theory and models have confirmed that the quality of products / services is directly affecting customer satisfaction. In other words, the better the quality, the higher the satisfaction. However, in most presented models, customer satisfaction is observed to mediating variable and it will eventually affect repurchase intention and brand loyalty in a positive manner. Nevertheless, for the application in this study, customer satisfaction will only be adopted as a dependent variable instead of mediating variable. This means that only the relationship between quality and satisfaction will be adopted and the post-effect of satisfaction will not be studied.

## **2.4 Website Quality Factors**

Website quality has been recognized as one of the most important performance measures of an online operation. It can be referred as the extent to which features of an online purchasing website fulfill the needs of customers and it reflects overall advantage of the website (Chang & Chen, 2008a). As asserted by Hanson (2000, p.44), “A well-designed website can potentially build trust and confidence in the company; reinforce an image of competence, functionality, and usefulness; alert the visitor to the company’s range of products and services; and point out local dealers, upcoming special events, and reasons to come back again”.

A study conducted by Parasuraman, Zeithaml and Malhotra (2005) demonstrated that high quality websites attracted more customers as compared to lower quality websites as it implies that their products are of high quality. Subsequently, Lee and Kozar (2006) recognized website quality as an important indicator of business success. Furthermore, as reported by Cunliffe (2000), website which is designed poorly will cause up to 50 %

loses in potential sales simply because the website users are not able to find what they want, and a loss of 40 % of potential website re-visits due to initial negative website experience.

There are many factors that determine quality of a website. For instance, a study conducted by Wong (2014) considered website design, content and structure as the determinants of website quality. Next, Nosrati (2008) has considered availability, adaptability, reliability, usability and response time. Furthermore, Bai (2008) considered usability and functionality as the factors for website quality.

Nonetheless, a more thorough multidimensional website experience framework is proposed by Constantinides (2004) which stated that website quality is influenced by three categories of quality factors: content, functional and psychological factors, each having its own detailed elements as summarized in Table 2.1.

Content factor is the very first website feature experienced by consumers the moment they use an online website. Basically, it refers to design creativity and marketing mix-related elements of a website. It is believed that the effectiveness of the content's information affects the users' degree of involvement and eventually improve their satisfaction and eventually repurchase intention (Richard, 2005). Therefore, it is highly important to present the contents timely, with updated, relevant and understandable information. More specifically, it is important for the website designers manage the information quality related to the products and services presented in the online



purchasing website and provide any additional information that could be helpful to consumers (Flavian *et al.*, 2009).

Table 2.1:

*Main Building Blocks of Website Experience and Their Sub-categories*

Quality Factors		Element
Content	Aesthetics	Design elements
		Quality of presentation
		Online atmosphere
	Marketing Mix	Price
		Product
		Promotion
		Fulfillment
		Characteristics
		Communication
Functional	Usability	Speed of Website
		Navigation
		Search facilities and process
		Convenience
		Ordering / payment process
	Interactivity	Findability / accessibility
		Interaction with company personnel
Psychological	Trust	Customization
		Customer service / after sales service
		Uncertainty reducing elements
		Transaction security
		Guarantees / return policies
		Customer data misuse and safety

Source: Constantinides, 2004

According to Richard (2005), high-quality website content should include the features of effective navigational characteristics, organized structure, informativeness and entertainment. Meanwhile, according to Coker (2013), the website content should be of good quality and relevant to consumer needs and designed with unique (novel) features. In this regard, research has demonstrated that, in comparison to website that contain only

plain text, a website having the suitable combination of text, pictures, videos, and animated graphics would provide a far more valuable and pleasing experience to consumers and eventually lead to higher satisfaction (Coker, 2013). Moreover, intuition would also suggest that website with incomplete and inaccurate information would potentially lead to dissatisfaction of consumers. Indeed, Liu *et al.* (2008) have presented the evidence to prove that quality of presented information on website has a positive relationship with overall customer satisfaction. At the same time, the conducted empirical study also suggests that unique website contents which are useful to consumers provide a distinct competitive advantage for online vendors (Liu *et al.*, 2008).

In this study, the two elements of content factor namely aesthetics (covering website design and appearance) and marketing mix (covering information presented on website) are adopted and linked to satisfaction of customers.

Next, according to Constantinides (2004), the quality of an online purchasing website can also be gauged via its functionality. Generally, functionality refers to the degree to which an online purchasing website can operate as intended and is expected to perform according to user's desire (Tandon *et al.*, 2016a). In other words, if a customer can get his / her desired information by searching from an online purchasing website, place an order and perform online purchase transaction without facing much technical difficulties, then that customer will perceive the quality of an online purchasing website in the aspect of website functionality.

Website functionality factors are the most frequently used website quality factors in the literature, and it is closely associated with the success or failure of a certain website. It is also believed to directly affect online consumers' behaviour. Since the reason to purchase online is for time saving and convenience, hence slow, dysfunctional website and poor interactivity cause users to look for other alternatives. Up to date, typical website functionality factors that have been reported to be significantly correlated to satisfaction include easy to use (Khare & Rakesh, 2011; Tandon *et al.*, 2016b), navigability (Tandon *et al.*, 2016a), product coordination (Chen *et al.*, 2010), usability and interactivity (Zhao & Roy Dholakia, 2009; Akrimi & Khemakhem, 2014), security of website (Tandon *et al.*, 2016b), response time and informational fit-to task (Kim & Stoel, 2004), and personalization (Wolfenbarger & Gilly, 2003).

Nevertheless, in this study, the functional factors considered are based on multidimensional website quality framework proposed by Constantinides (2004). According to Constantinides (2004), the functional factors are referring to the factors that enhance online experience by presenting online customers a good functioning, fast, simple, easily use and navigate, interactive website where they are primarily categorized into website usability and interactivity factors.

Lastly, psychological factor or online trust refer to website integrity and credibility which play an important role in helping online customers who are unfamiliar with the online vendor or unfamiliar with online transaction to overcome their doubts, fears or fraud, so as to reassure them with the safety of the website and trustworthiness of the online vendor. In commercial world, trust plays the fundamental role in developing and

maintaining buyer-seller relationship. It has also been reported to have enhanced loyalty, reduced conflict and facilitated the cooperation necessary for both buyers and sellers (Kingshott, 2006). However, the challenge with building trust is that it is not something that can be bought or forced, instead it must be earned through every interaction between two parties. Anyhow, building trust can be rather difficult due to significant differences between two related parties, in terms of characteristics, preferences, cultures, etc. As reported by Akbar and Parvez (2009), trust can eventually be built when one party believes that the actions of the other party will bring positive outcomes to the first party.

Constantinides (2004) has effectively analyzed and effectively summarized all the relevant literature which is linked to each element of the website quality factors. From the findings, trust and usability are the main concerns of website quality and are more commonly reported as influential factors affecting behaviour of online consumers. Nevertheless, how these factors affect online consumers' behaviour are still not clear in the study conducted and requires further verification. Therefore, in this study, the website experience framework proposed by Constantinides (2004) are adopted and by referring to the presented models in Section 2.3 which have illustrated the linkage between quality and satisfaction, the research framework that relates independent variables (the five adopted website quality factors) and dependent variable (customer satisfaction) of this study is developed, as shown in Figure 3.1.

#### **2.4.1 Website Aesthetics and its Relationship with Customer Satisfaction**

Basically, aesthetics reflects the artistic and sensory elements of the online presentation, aiming to provide pleasing appearance to the users. Aesthetics are the elements that

communicate the online atmosphere, the positive energy that attracts online customers to stop by, explore and possibly interact with the website.

Studies reveal that aesthetics affect online and traditional in-store shoppers in similar manner, where it is treated as the success factor in online retailing (Madu & Madu, 2002). It is also considered as an important element of perceived website quality and has been applied to measure perceived quality of online purchasing websites (Yoo & Donthu, 2001). According to Jeon and Jeong (2017), the aesthetics and design elements of websites can significantly affect the overall appearance of website which subsequently influences consumers' emotional reactions. For instance, Vilnai-Yavets and Rafaeli (2006) reported that it is part of customers' expectation to find aesthetic values in online platform and will be more satisfied when the online platform is aesthetically designed rather than unaesthetically. Another study conducted by Kuo *et al.* (2015) discovered that misleading photos displayed at hotel website can negatively affect customer satisfaction and degrade brand trust for an upscale hotel. In other words, aesthetically designed websites can potentially attract customers to stay longer and surf more, and thus increasing the probability for online purchases. Hence, it is clear that there is a relationship between aesthetics of website and satisfaction of online customers.

Main elements for aesthetics such as design features and style / atmosphere of the website are essential in facilitating online experience and purchase decision (Constantinides, 2004). Similar to shopping in traditional stores, the first impression by website visitors is important. However, in contrast to traditional stores, online visitors spend much lesser time in online store they visit. In other words, internet users spend

this very short time in searching for information and their desired products, and thus the design and atmosphere of the websites must be able to grab attention and interest of the online customers in this limited amount of time. Hence, a poorly designed website interface may potentially affect consumers' mood during shopping process and create a perception that the online vendors is not competent enough to employ a professional designer and eventually question the trustworthiness of the online vendors. Li (2014) stated that aesthetics of website must be given special attention as the aesthetics elements are often important indicators which reflects the quality and credibility of online sellers.

As for the evaluation criteria of aesthetic aspects, Madu and Madu (2002) stated that they are closely related to website design theme, sizes and types of fonts applied, page layout, color mixture, clarity and readability of texts, quality of photos with good resolution, appropriate integration of visual presentations and animation on a website. These are all the design elements that can all influence users' behaviour towards the website.

#### **2.4.2 Website Marketing Mix and its Relationship with Customer Satisfaction**

Marketing is generally referring to the process of creating, communicating and delivering value which can be remembered customer, which in turn, build strong customer relationships that potentially capture value from customers in return (Armstrong & Kotler, 2011). According to Wahab *et al.* (2016), organization which applies marketing mix in their business will particularly help them to increase the sales and profits of their organization. Marketing mix's or more commonly referring to 4Ps

elements which comprises price, product, place, and promotion are also the contributors to website experience. In the literature, studies focused on the impact of marketing mix elements on customer satisfaction have actually been reported (Nuseir & Madanat, 2015; Oberiri, 2016; Wahab *et al.*, 2016). From the findings, marketing mix variables are found to be significantly correlated with customer's perception of a product, i.e., either satisfied or dissatisfied, which in turn, influences the purchase behaviour of the customer. Therefore, having appropriate knowledge on the four elements of marketing mix can potentially help business organizations to influence their potential and existing customers to continue doing business and eventually become loyal.

The first element, price refers to the overall monetary charges applied for the goods or service or information provided to customers. From the available literature, factors found related with price as part of website experience are the price level, online discounts, price transparency, payment period and credit terms (Constantinides, 2004; Oberiri, 2016). Generally, the pricing decision is dependent on various determining factors such as the buying affordability of customer, cost of the product itself and cost of delivery. Price is reported to be influential on customers' psychology and significantly affect their decision to repurchase a product. It is one of the important predictors of satisfaction and product loyalty. This is due to the facts that a customer will carefully perceive whether he is getting the maximum or at least equivalent benefits from his spending (Nuseir & Madanat, 2015). Hence, online purchasing website with cheaper / reasonable price and more discounted items will have higher chance to attract customers to pay a visit.

Next, product refers to tangible, physical products as well as services offered by business organization. The product elements that potentially affect consumer website experience are the product brands, assortment, features and presentation (Constantinides, 2004). Product is the main element of marketing mix and every product differs from another product according to its unique characteristics. The unique characteristic of each product offering is a major concern of every customer, i.e., its design which grabs customers' attention, its unique features which allow customers to buy new product and its brand name which enhances customer loyalty (Nuseir & Madanat, 2015). In online platform, consumers cannot have physical contact with the items before purchasing them, hence, effective product presentation with necessary and valuable details can help customers to make better purchase decision.

Meanwhile, in the context of place, it is initially linked to the product availability to the customer. However, since the goods do not reach the customers automatically and they actually go through a channel, the concept has further been enhanced to include the communication channels, location and logistics as well (Nuseir & Madanat, 2015). In online platform, consumers cannot have physical contact with the items before purchasing them and one important issue that consumers concerned about is the delivery of goods (logistic) which would normally take time. In this regard, effective communication channels with the online vendors, and clarity of selling conditions as well as delivering terms play an important role in providing consumers with essential information to enhance their confidence towards the website (Constantinides, 2004). In other words, valuable information can particularly compensate the lack of physical contact with the salesperson and product to a certain extent, which effectively reducing



the online consumer's doubts. Nevertheless, flexible and fast delivery options, and convenient order tracking system can improve website image and overall purchase experience.

The final marketing mix element, promotion is linked to the product advertising process with the goal of selling the product to the targeted customers. Through advertising process, customers are provided with specific features of a product / service which may change customers' perspective on certain product and eventually convince them to purchase the advertised product. Hence, promotion can also be regarded as a form of marketing communication, i.e., communication of information of product with the intention of generating positive customer's response. According to Nuseir and Madanat, (2015), effective communication of products via advertisement is an important marketing strategy where it builds up customer's satisfaction on certain brands which will develop into loyalty. The promotion elements can be presented in the form of pop-ups, banner advertisement, text advertisement and promotion codes (Deshwal, 2016) which highlight the trending special offers or deals to attract customers' attention and stimulate their interest to these specific products. According to Constantinides (2004), specific promotion elements that can enhance website experience include free extra services, incentive program and sales promotion.

As an overall, the information of marketing mix displayed on the online website is directly affecting perception and evaluation performed by customers on the convenience of an online purchasing website, and consequently affecting their level of satisfaction. Hence, online purchasing website need to provide appropriate information to the

customers to promote understanding on the products and thereby assisting them in making purchase decision. Information made available to customers such as product description, price information, delivering terms and channels, associated services, company contacts and links to other relevant websites can all influence their purchase behaviors. An online purchasing website with updated, accurate, clear, reliable and useful information is most likely to be perceived as useful. Once customers have perceived a particular online website to be of good quality, they would definitely feel more satisfy and eventually have a pleasant attitude toward that particular website

#### **2.4.3 Website Usability and its Relationship with Customer Satisfaction**

Generally, the term usability is referring to the extent to which an online website allows the intended users to utilize its functions easily and appropriately. In this regard, Nah and Davis (2002, p.99) has defined usability as “the ability to find one’s way around the Web, to locate desired information, to know what to do next, and, very importantly, to do so with minimal effort”. Meanwhile, elements that potentially enhance usability of online purchasing website include the website convenience, speed of page loading, information structure, etc. Hence, to create a website which suits the user demands will not only require high quality and updated technology, but also relevant knowledge of the characteristics and needs of the potential website users. Evaluating website quality through functionality and usability factors provide benefits to both online retailers and customers. From the retailer side, it helps to improve interface structures and services by having an appropriate trade-off between functionality and usability. Meanwhile, from the consumer side, it smoothenes their online purchasing process with fulfilment of their expectations and needs (Calisir *et al.*, 2010).

Tandon *et al.* (2016a) has stressed that usability is an important factor in commercial website success and eventually revealed it as a main factor for acquiring trust and satisfaction of online purchasing customers. The elements that have been considered as the determinant of the usability concept are perceived ease of website structure, interface, usage and navigation, speed of information searching and the ability of users to control what they are doing. Another related study was conducted by Calisir *et al.* (2010) to study the significance of functionality and usability factors of online purchasing websites. The findings revealed that higher priority score was obtained for usability factors which include ease of use, navigation, interaction and response time, while lower score was obtained for functionality factors such as user guidance, search options and customizability.

Based on Table 2.1, the factors of usability examined in this study are website convenience, information architecture and navigation, findability / accessibility, search facilities and ordering / payment process, and lastly speed. The first element of usability, convenience is commonly associated with smooth browsing, purchasing on the website, and settling of the online transaction with minimum efforts. Research found that one of the main motivators for online purchasing customers to continue / stop interact with online retailers is convenience. Hence, it is highly crucial for website designers to first know about their customers preference in performing related online activities and then adjust the structure and setting of the website accordingly.

Another important element is on information architecture and navigation. From the perspective of online users, it is very normal that they expect to search for useful

information easily via the effective website navigation. A good navigation is when users can smoothly find their desired information through search features, menus, links, and graphical components, etc., while continuing to know about their location in the website. Poor information management and website navigation can cause users to lose directions and fail to find the desired information. This will eventually leave bad website impression to the users. Hence, online search facilities which can quickly help customers to locate their desired information must be integrated in a well-designed commercial website.

Next, accessibility which means that the website should be accessible using different search engine and browsers friendly. In online platform, information is searched / located by means of search engines or web browsers. Hence, it is very important for website designers to ensure consistency and compatibility of the website with various web browsers to reduce the efforts needed by online consumers in finding the website and allow them to access using different types of web browsers.

Following next is ordering / payment process which is expected by customers to be more efficient than traditional in-store shopping. Since it involves payment (monetary matter), hence it naturally linked to the security of an online purchase website. Lengthy and troublesome processes required for order placement and completion of online transactions, and interrupted online transactions are still one of the major reasons causing customer's irritation (Constantinides, 2004). A study conducted by Ferreira and Pithan (2005) stressed that poor functionality and technical errors of a website can cause disappointment and insecurity, and such feelings affect their satisfaction negatively. In

other words, if the website fails to provide smooth purchase process, it will definitely lose consumers. Hence, applying a balanced approach to ensure that online purchasing websites remain simple to handle and yet, secure is a crucial move.

Lastly, website speed or response time of the website is also important as online users normally do not have the patience to wait for slow loading and responds. If this happens, users may immediately close the website and easily switch to other website alternatives. Hence, minimal loading times is also an essential requirement in preventing users from getting bored and changing to another website. As a rule of thumb, the shorter the response time of a website provide, the more the customers perceive the website as high quality and the more they are satisfied (Calisir *et al.*, 2010). Anyhow, loading time is also affected by the traffics on the net itself and the speed of the user's internet. However, as suggested by Thelwall (2000), minimizing aggregate size of the files generated by the web page will potentially help to shorten the download time.

#### **2.4.4 Website Interactivity and its Relationship with Customer Satisfaction**

Interactivity has been recognized as an important feature of online store to attract and maintain online customers (Fiore, Jin & Kim, 2005). Basically, the purpose of having interactive features on website is to present more personalized services to the online customers and concurrently promote interaction with other online users who are willing to share experiences and provide purchase suggestions. Up to date, interactivity has been defined in many ways. Nevertheless, Liu and Shrum (2002) have taken into consideration main components proposed by other researchers and consequently defined interactivity as “the degree to which two or more communication parties can act on each

other, on the communication medium, and on the messages and the degree to which such influences are synchronized”. Hence, based on the given definition, three main components of interactivity can be identified as active control, two-way communication and synchronization.

In online environment, active control is associated with voluntary action of users in controlling their web experiences according to their own preferences. It simply means that the users are free to select what they want to see. Meanwhile, two-way communication facilitates the communication between online vendors and users, and between users and users. Examples of two-way interaction on the website can be user’s forum, chat-room or bulletin board. In addition, interaction with company personnel, customer service / after sales service, and customization are few examples of interactivity between online vendor and customer. Online customers are expecting a highly convenient shopping and support in case of doubts and problems with products. Hence, by having effective interaction facilities, positive customer experience can eventually be built as a result of uncertainty reduction during online transaction. Thirdly, synchronized communication allows immediate response from the website after receiving users’ input. This means that the users do not need to wait for long (particularly just few seconds) to receive a response / feedback after inputting a piece of searching information. Hence, perceived interactivity can be interpreted as the extent to which users are able to customize the appearance and content as well as interact effectively with the website manager / online vendor and other users.

Interactivity has been reported to be positively linked with satisfaction. This is in good agreement with the study conducted by Yoo *et al.* (2010), who suggested that the purpose of promoting interactive services on website is to enhance consumers perceived value and to satisfy them. In similar study, Liu (2003) has empirically supported the argument that higher controllability over the online environment will lead to higher satisfaction and general psychological well-being. As clarified by Ballantine (2005), high level of interactivity allows online consumers to gain control over their website purchasing experience, which eventually leads to greater satisfaction. Moreover, Danaher *et al.* (2006) discovered that interactivity lengthen the visit duration and traffic at the website, whereas lack of interactivity generates the disappointment of the user. Other than controllability towards the website, perceived interactivity in terms of the responsiveness level and the method of handling complaints, has also been considered as a major influential factor on satisfaction (Akrimi & Khemakhem, 2014).

According to Zhao and Roy Dholakia (2009), for a website to be perceived as interactive, there are eight attributes needed to be met: (1) quick customer feedback and comments, (2) effective customer-to-customer communication, (3) keywords search or shortcut to information searching, (4) a consistent webpage navigation, (5) built-in ordering system which handle ordering and payment process, (6) good tracking system, (7) personalization of customer's information, and (8) virtual reality display to which allow the same feeling as if customers are in physical stores. Nevertheless, in this study, the interactivity attributes will consider only the attributes of customization, and communication with the online vendor and other online users (Constantinides, 2004).

#### **2.4.5 Website Online Trust and its Relationship with Customer Satisfaction**

In online business, online trust is recognized as an important factor associated with the success or failure of online ventures. As reported by Harris Interactive (2001), in US, approximately 70 % online users are worried about their privacy, confidentiality of their personal data, security of online transaction and customer data abuse and misuse. Moreover, issues such as hacking, scams, spam and fraud have further raised the security concerns on mistrust and skepticism. Furthermore, limitations of online purchasing such as lack of physical contact with salesperson or product, tangible experience, and anonymity of internet platform are also potential factors that increases worry and risk perception among customers. However, for consumers to continuously support and be loyal to a certain online purchasing platform, trust in the online vendor is the only thing that can be relied upon to mitigate their uncertainty. Therefore, it is essential for website designer and online vendor to work together to include all the appropriate trust-establishing elements on the website, to ensure longevity of buyer-seller relationship. In this regard, online marketers will have to first locate the components that potentially enhance or diminish trust among targeted customers and then gain proper understanding on how those elements can impact their online perceptions. This knowledge will be valuable in finding the best mix of trust-establishing elements.

Online trust has been reported to be influential on customer satisfaction. For instance, a study conducted in Malaysia by Ludin and Cheng (2014) revealed that a trusted website with good security / safety features will enhance confidence of customers and help them to be more satisfied. Basically, safety or security is the ability of the online platform to



protect customer confidential information and privacy from any unauthorized disclosure of information especially when performing online transaction. It has been proven to be one of the important factors that is considered by customers in making decision to purchase online Ludin and Cheng (2014). Similarly, in another study, Mahaputra (2017) reported that trust is positively and significantly correlated with customer satisfaction. Without having enough trust, the customers particularly will not be satisfied with the delivered service or in worst case the whole business organization itself. Furthermore, other than privacy issue, according to Mahmoud *et al.* (2018), conflict handling capability is also can directly affect customer satisfaction. The study suggested that customers' complaints must be handled appropriately in order to gain their trustworthiness, which in turn, help to satisfy and retain them.

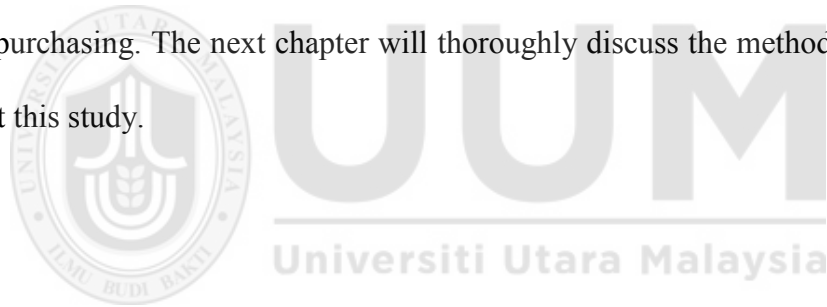
According to Constantinides, (2004), there are five core elements that can influence online trust. First, transaction security and safety of personal data is the main concern of online customers in purchasing products. If the website is highly prone to hacking, service interruptions and disclose of consumer data, there is no doubt that consumers will leave the website forever. Hence, the first step to gain online trust is to provide a safe and secure online environment. Second, detailed procedures for ordering, placing order and refunding, robust customer policies, good communication and most importantly strict security can enhance the confidence of customers towards online transactions. This means that the steps starting from placing an order until the payment process must be clear and uninterrupted. Providing variety of payment modes are also effective in gaining online trust as the customers are forced and can select their own payment preference.

Third, misuse of customers' data is also a question to customers who care about their privacy. Undeniably, some irresponsible online firms may sell the personal data to third parties or may use the data for other purposes without proper authorization directly from the consumers. These activities usually annoy consumers and cause poor website image. Hence, it is essential for online vendors to perform follow-up activities with the customers and obtain their clear permission before using their private information for other purposes. Fourth, one powerful tool to gain competitive advantages, improve trust among customers and reduce their resistance in performing online transaction, is by offering product guarantees. Clear return policies which systematically outline the procedures for returning / refunding of product and compensation in case of product damages can have positive effect on the trustworthiness of online vendors. This is important especially when the products are not received in good order due to unavoidable issues in delivering process. In some worst cases, the products may not reach the customers at all. Hence, in this circumstance, it is important to refund the losses suffered by customers where a proper guideline must be provided clearly on the website itself. Lastly, having uncertainty reducing elements such as frequently asked questions (FAQs) effectively reduces number of inquiries of customers and effectively enhances trust. This information is effective for answering common doubts that customers might have when using the online website. By having more understanding on the website that they are using, customers will feel more relax and familiar with the atmosphere and may eventually be more confident when purchasing on the website (Li, 2014).

These are all the elements that are essential for building online trust or psychological relationship between online vendors and customers. Nevertheless, trust is not something that can be built easily, but it can be destroyed easily. In online circumstances, it will be more difficult to build trust between vendors and consumers and will be extremely challenging for rebuilding a broken trust. Therefore, building, maintaining and managing trust it is a crucial issue that need to be addressed by all online vendors.

## **2.5 Summary**

In summary, this chapter has presented the empirical evidence and the past researches which have been conducted on website quality factors and customer satisfaction towards online purchasing. The next chapter will thoroughly discuss the methodology on how to conduct this study.



## CHAPTER 3

### METHODOLOGY

#### 3.0 Introduction

This chapter presents the approach adopted to conduct this research study. Major aspects of research methodology and procedures are explained in detail which include research framework, formulated hypotheses, research design, operational definition, population and sample, research instrument, pilot study, ethical consideration, data collection, as well as data screening and analysis. In order to ensure data accuracy and reliability, and systematic completion of the research study, the researcher must follow the presented aspects and procedures. This chapter ends with a brief summary section summarizing all the important points that have been discussed.

#### 3.1 Research Framework

The research framework applied in this study is as shown in Figure 3.1. It presents the direct relationship between the independent and dependent variables that are applied in this study. In this study, multidimensional website qualities (Constantinides, 2004) which comprises of a total of five website quality factors are considered: (1) aesthetics, (2) marketing mix (3) usability, (4) interactivity and (5) online trust. Note that, aesthetics and marketing mix factors are referring to the content of a website. Meanwhile, usability and interactivity factors are referring to the functionality of a website. Lastly, online trust factor is the psychological experience of customers in handling the website. In this work, the five website quality factors will serve as independent variables and meanwhile customer satisfaction will act as the dependent

variable. Therefore, based on the presented research framework, this study aimed to investigate the relationship between these factors and customer satisfaction in the context of online purchasing.

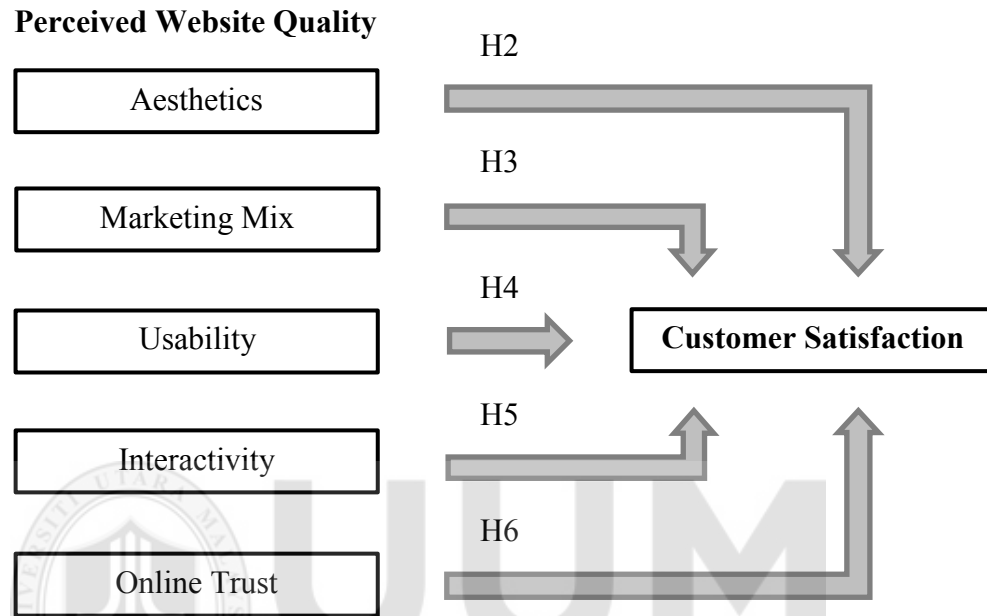


Figure 3.1  
*Research Framework of Perceived Website Quality Leading to Customer Satisfaction.*

### 3.2 Hypothesis

Based on the research questions (presented in Section 1.2) and research objectives (presented in Section 1.3), the following hypotheses are formulated.

- H1: Online customers in Kuala Lumpur, Malaysia show positive satisfaction level towards online purchasing.
- H2: The website aesthetics factor is correlated to customer satisfaction towards online purchasing.
- H3: The website marketing mix factor is correlated to customer satisfaction towards online purchasing.

- H4: The website usability factor is correlated to customer satisfaction towards online purchasing.
- H5: The website interactivity factor is correlated to customer satisfaction towards online purchasing.
- H6: The website online trust factor is correlated to customer satisfaction towards online purchasing.
- H7: The website aesthetics, marketing mix, usability, interactivity and online trust factors have significant effect on customer satisfaction towards online purchasing.

### **3.3 Research Design**

Research design is the basic plan or strategy of research. It consists of plan for conducting research which includes specification of elements to be investigated and procedures to be followed (Mohammad, 2013).

Basically, this study involved descriptive, correlational and regression approaches. Descriptive method is applied to describe the demographic characteristics and general online purchase behaviour of the respondents. The demographic information of the respondents that will be presented include gender, marital status, age, ethnicity, education level, living district in Kuala Lumpur, monthly income and employment status. Meanwhile, the general online purchase experience that will be presented include their time spent for online purchase activities, online platform preference, product preference, mode of payments, problems encountered, and reasons for not purchasing online (for respondents without any online purchase experience). On the other hand, correlational

approach is applied to find out the correlation between independent and dependent variables. In this study, the independent variables considered are the five website quality factors (aesthetics, marketing mix, usability, interactivity and online trust) perceived by customers while customer satisfaction towards online purchasing is the dependent variable. Furthermore, regression analysis is performed to study the effect of the five website quality factors perceived by customers on customer satisfaction.

This study applied a cross-sectional survey design with quantitative research approach for data collection at single point in time. The quantitative research relied on the use of predetermined or standardized data collection instruments (questionnaires). The questionnaires are distributed to the targeted respondents via online channels. From the collected questionnaires, numeric values of the responses are first extracted and are then statistically analyzed by Statistical Package for the Social Sciences (SPSS) for interpretation of the data (Ahmad & Usop, 2011) and hypothesis testing (Zikmund *et al.*, 2010).

### **3.4 Operational Definition**

The operational definition for the main variables applied in this study is as follows:

#### **1. Customer Satisfaction**

In this study, customer satisfaction refers to the feelings of contentment expressed by customers when the quality of online purchasing website meets / exceeds their expectations (Xu, 2017).

2. Aesthetics

In this study, aesthetics refers to the extent to which the overall appearance of an online purchasing website is perceived by online customers to be pleasing and beautiful (Park *et al.*, 2007).

3. Marketing Mix

In this study, marketing mix refers to the extent to which the marketing mix information presented on an online purchasing website such as price, product place and promotion is perceived by online customers to be relevant and helpful (Li, 2014).

4. Usability

In this study, usability refers to the extent to which an online purchasing website can effectively be applied by online customers to achieve their specified objectives with minimal efforts (Nah & Davis, 2002).

5. Interactivity

In this study, interactivity refers to the extent to which online customers believe that additional information regarding online purchasing can be received promptly by communicating with online vendor and other website users over an online purchasing website (Constantinides, 2004).

6. Online Trust

In this study, online trust refers to the extent to which online customers believe that the information presented on an online purchasing website is reliable, and the website is secured enough to protect their privacy and online activities (Constantinides, 2004).



### 3.5 Population and Sample

This study is conducted in Federal Territory of Kuala Lumpur, Malaysia. The target population for this study is the residents living in Kuala Lumpur area. According to Kuala Lumpur City Hall, Federal Territory of Kuala Lumpur covers 11 districts: Bukit Bintang; Titiwangsa; Setiawangsa; Wangsa Maju; Batu; Kepong; Segambut; Lembah Pantai; Seputeh; Bandar Tun Razak; and Cheras. Meanwhile, as reported by the Department of Statistics Malaysia, the total population in Kuala Lumpur area as of 2018 is estimated to be 1.8 million.

According to Dillman (2007), the suitable sample size for a targeted size of population can be determined by using the following formula:

$$N_s = \frac{N_p (p) (1 - p)}{(N_p - 1) \left(\frac{B}{C}\right)^2 + (p) (1 - p)} \quad (3.1)$$

where

$N_s$  = Sample size needed for a targeted size of survey population,

$N_p$  = Size of population,

$p$  = Proportion of population expected to choose one of the two response categories; normally a maximum heterogeneity (most conservative) of 50/50 split is considered, i.e.,  $p = 0.5$ ,

$B$  = Acceptable amount of sampling error;  $\pm 5\%$  of the true population value, i.e.,  $B = 0.05$ ,

$C$  = Z statistic associated with the confidence level; normally confidence level is set at 95 %, i.e.,  $Z = 1.96$ .

Hence, by using Equation (3.1), and setting  $N_p = 1.8$  million, the suitable sample size can be calculated as

$$N_s = \frac{1800000 (0.5) (0.5)}{(1800000 - 1) \left(\frac{0.05}{1.96}\right)^2 + (0.5) (0.5)} \quad (3.2)$$

$$N_s = 384. \quad (3.3)$$

Hence, it is clear that the minimum sample required in this study is 384. However, to ensure consistency of the collected samples from each district (11 in total), a quota sample of 35 samples are considered from each district, contributing to the total of 385 samples. This study applied a sampling technique called non-probability quota sampling and the samples are taken conveniently from group of people who are easy to reach. In other words, only those who happen to be at the data-collection venue will have the chance to be selected while those who are not available at the data-collection venue will have no chance of being selected. Nevertheless, the respondents need to be living in Kuala Lumpur area and willing to participate.

### **3.6 Research Instrument**

In this study, the main instrument applied for data collection is a survey questionnaire and meanwhile, Statistic Package Social Sciences (SPSS) version 25.0 software is applied for data analysis. Basically, questionnaire is a preformatted written set of questions in which respondents record their answers, usually within rather closely defined alternatives (Ahmad & Usop, 2011).

The questionnaire is designed using Google Forms platform, in closed-ended manner and is self-administered. Instructions for completing the questionnaire are included to effectively direct the respondents in answering all the questions. Before answering the questionnaire, the respondents will be asked whether they have ever purchased online. If the respondents have any experiences in online purchasing, they will further be directed to the main content of the questionnaire. In contrast, if the respondents do not have any experiences, they will be asked for the reasons for not purchasing online, instead.

In order to address the objectives of the study, the questionnaire is constructed with eight major sections. In Section 1, the basic demographic information of the respondents such as gender, age, living area, ethnicity, education level, marital status, employment status and monthly income are requested.

Following next, Section 2 focuses on general online purchase experience of the respondents. In this aspect, respondents with and without online purchase experience will be given different set of questions to answer. For respondents with online purchase experience, a total of ten questions are created to find out their online purchasing trends

which include online purchase reason, preferred platform, mode of payment, type of purchased product, frequency of shopping online and general problems encountered. After completing, the respondents will be directed towards Sections 3 – 8. Meanwhile, for respondents without any online purchase experience, the respondents are asked for the possible reasons of not purchasing online.

Subsequently, Sections 3 – 7 focus on the measure of independent (website quality factors) and dependent (satisfaction) variables which are defined in this study. Specifically, in Section 3, the respondents are directed towards responses for website aesthetics factor. In Section 4, the respondents are directed towards responses for website marketing mix factor. In Section 5, the respondents are directed towards responses for website usability factor. In Section 6, the respondents are directed towards responses for website interactivity factor. In Section 7, the respondents are directed towards responses for online trust factor. For the measures of independent variables, Sections 3 – 7 each contain a total of five questions. Finally, in Section 8, five questions are applied to identify the extent of respondents' satisfaction towards online purchasing. For Sections 3 – 8, Odd-numbered Likert Scale with the scores ranging from 1 to 5 is applied in the questionnaire.

As an overall, the structure of the designed questionnaire can be summarized as Table 3.1. Meanwhile, Table 3.2 provides the score applied in the questionnaire. Next, Table 3.3 and Table 3.4 presents the measurements applied in Section 2 and the measurements applied for independent and dependent variables in Sections 3 – 8, respectively.

Table 3.1

*Summary of Questionnaire Construct*

Section	Variable	No. of Items	Items
1	Demographic information	8	Section 1: Item 1-8
2	General online purchase experience	11	Section 2: Item 1-10 (With experience) Section 2: Item 1 (Without experience)
3	Aesthetic	5	Section 3: Item 1-5
4	Marketing Mix	5	Section 4: Item 1-5
5	Usability	5	Section 5: Item 1-5
6	Interactivity	5	Section 6: Item 1-5
7	Online Trust	5	Section 7: Item 1-5
8	Customer Satisfaction	5	Section 8: Item 1-5

Table 3.2:

*Five Point Likert Scale Applied in This Study.*

Scale	Score
Strongly Disagree	1
Disagree	2
Neutral	3
Agree	4
Strongly Agree	5

As shown in Table 3.2, Scales 1 and 2 represent negative responses, Scale 3 represent neutral response and Scales 4 and 5 represent the positive responses. The Likert scale is used to find out the extent of respondents' opinions on their online purchase experience and satisfaction. Since the subject being discussed reflects sensitive issues of the respondents, it is good to have a middle point where they can remain neutral in certain situations (Tsang, 2012). Five point scales will be sufficient in for this study. If more response choices are provided, the respondents will start picking an answer randomly and this will make the collected data meaningless. Besides, qualitative attributes such as

feelings and emotions is difficult to be represented by just having a two-point scale of “Yes” or “No” response from the respondents. Therefore, by using Likert scale, a more accurate response can be attained. Moreover, the qualitative attributes can be quantified and statistically analyzed.

Table 3.3

*Measurements Applied for General Online Purchase Experience*

Items	Sources
Respondents with online purchase experience	
How do you first know about online purchasing?	
How much time would you willing to spend on online purchasing platform daily?	
How long have you been purchasing online?	
When was the last time you purchased online?	
How often do you shop online?	
Why do you prefer to purchase online instead of shopping in-store?	(Jayasubramanian, Sivasakthi & Priya, A., 2015).
Which of the following is your preferred online purchasing platform?	
What products do you normally purchase online?	
What are the modes of payment you preferred for online purchasing?	
Please indicate any problems that you have encountered during your previous online purchase experience.	
Respondents without online purchase experience	
Why are you not purchasing online?	(Jayasubramanian, Sivasakthi & Priya, A., 2015).

Table 3.4

*Measurements of Independent and Dependent Variables.*

Variable	Items	Source
Aesthetics	The website displays visually pleasing design.	(Kim & Stoel, 2004)
	The website design is innovative and creative.	
	The display pages within the website are easy to read.	
	The graphics and pictures of the website capture my attention.	(Wang & Le, 2015)
Marketing Mix	The website provides a good online store atmosphere.	(Constantinides, 2004)
	The website provides accurate and updated information.	(Kim & Niehm, 2009)
	The information on the website is relevant to user.	
	The price displayed is appropriate, clear and accurate.	
	Special offer / discount / promotion highlights and can easily be noticed.	(Elkhani, Soltani, & Jamshidi, 2014).
Usability	The product features are presented appropriately, and it fulfills user's need.	(Wang, Hernandez & Minor, 2010)
	A first-time buyer can make a purchase from the website without much help.	(Chang & Chen, 2008b)
	The website can be browsed smoothly and at high speed.	(Kim & Stoel, 2004)
	Navigation on the website is consistent and available on every page.	(Wang & Le, 2015)
	Relevant information can be found easily with minimum clicks.	
	It is quick and easy to complete a transaction at the website.	(Chang, Wang & Yang, 2009)

Table 3.4 (continued)

*Measurements of Independent and Dependent Variables*

<b>Variable</b>	<b>Items</b>	<b>Source</b>
Interactivity	This website has a search tool that enables user to locate products.	(Chang & Chen, 2008b)
	The website provides variety of choices for purchasing decisions.	(Lin, 2007)
	The website provides quick feedback to user about the products and services.	
	It is easy to interact with the website to obtain information tailored to user's needs.	(Kim & Niehm, 2009)
	The website has interactive features, which help users to accomplish their task.	
Online Trust	The website has adequate security features.	(Chang, Wang & Yang, 2009)
	Customer privacy is protected at the website.	
	Making transactions on the website is safe and secure.	
	The "Frequently asked questions" on the website addressed most of user's online shopping questions.	(Cai & Jun, 2003)
	Warranties / guarantees / return policies are clearly provided.	
Customer Satisfaction	As an overall, I am happy with my most recent decision to use online purchasing website for collecting information and order placement.	(Chang & Chen, 2008b)
	As an overall, I feel safe when using online purchasing website for collecting information and placing order.	
	As an overall, I feel comfortable using online purchasing website.	
	As an overall, I am satisfied with the overall quality of online purchasing website.	(Nagesh, Ryan & Igbaria, 2003)
	As an overall, I am satisfied with my online purchase experience.	(Lin, 2007)



### **3.7 Pilot Study**

Reliability test must be conducted on questionnaires before it can be distributed to the respondents for the actual study. It is a necessary study which must be conducted prior to the exact data collection process. The purpose of the pilot test is to examine the reliability of the design of the questionnaire so that the data can accurately be collected and the unclear and misleading questions can be avoided. According to Azeem and Gondal (2011), a good research strategy requires careful planning and a pilot study will often be a part of research study. The pilot study conducted should involve 20 to 30 respondents which are not included in the actual study sample (Radhakrishna, 2007).

Besides that, Ahmad and Usop (2011), state that reliability is based on consistency, accuracy and stability of the research instrument. While, validity refer to the ability of an instrument to measure what researcher is attempting to measure. The feedback from the respondents will determine the appropriateness of the applied questionnaire. Besides that, this is also a test to find out whether the questionnaire is fully understood by the respondents. Hence, it will help the researcher to determine whether the study is flexible and valuable to continue.

In this study, a pilot study is conducted taking into consideration 30 respondents living in the area of Kuala Lumpur, Malaysia. The questionnaire is randomly distributed to the targeted respondents for the purpose of the pilot study. After completing the pilot test and reliability analysis, the questionnaire is checked and improved to be more accurate and relevant questionnaire. Subsequently, it will officially be distributed, and will take at

around five to ten minutes to complete the questions. The sample of questionnaire applied in this study is shown in Appendix A.

Meanwhile, the reliability of the questionnaire is determined by using Cronbach's Alpha analysis, where a value ranging from zero (0) to one (1) is generated. Generally, the questions are reliable when the value of the Cronbach's Alpha is approaching 1.00, i.e., value that is less than 0.6 is considered as poor, while those above 0.7 is in the acceptable range and reliability above 0.8 is considered good (Santos, 1999). Specifically, the classification of Cronbach's Alpha for different reliability interpretation is highlighted in Table 3.5 (Namdeo & Rout, 2016). Hence, in this study, the reliability of each measuring item is interpreted based on Table 3.5.

Table 3.5:  
*Classification of Cronbach's Alpha Value*

<b>Cronbach's Alpha Value</b>	<b>Reliability</b>
$\alpha \geq 0.9$	Excellent
$0.8 \leq \alpha < 0.9$	Good
$0.7 \leq \alpha < 0.8$	Acceptable
$0.6 \leq \alpha < 0.7$	Questionable
$0.5 \leq \alpha < 0.6$	Poor
$\alpha < 0.5$	Unacceptable

Source: Namdeo and Rout, 2016

The completed reliability analysis for pilot study is shown in Appendix B. From the reliability analysis conducted, the resulted Cronbach's Alpha for each independent and dependent variable is summarized in Table 3.6. Based on Table 3.6, it is clear that the value of Cronbach's Alpha obtained for all the variables are greater than the minimum

reliability requirement (Cronbach's Alpha > 0.7). Hence, it can be concluded that the instrument applied for data collection in this study is reliable.

Table 3.6:

*Cronbach's Alpha Value for Each Variable*

<b>Variable</b>	<b>Items</b>	<b>Cronbach's Alpha Value</b>
Aesthetics	5	0.737
Marketing Mix	5	0.734
Usability	5	0.767
Interactivity	5	0.837
Online Trust	5	0.717
Customer Satisfaction	5	0.875

### **3.8 Ethical Consideration**

One main ethical consideration that is needed to be included in this study is the issue regarding anonymous: the name and identity of the participating respondents need to be kept confidential. On top of that, another important ethical consideration is that the targeting respondents have the right to withdraw from or not participating in this study, where a consent form will be included in the distributed questionnaires to inform the respondents on this matter. Lastly, there is also a need to send consent letter to the management of Universiti Utara Malaysia (UUM), as permission for this study.

### **3.9 Data Collection Procedure**

Generally, the desired data is collected through the distribution of questionnaires (Bai, 2008; Santhi, 2017) to the residents living in the area of Kuala Lumpur, Malaysia, which

covers 11 districts: Bukit Bintang; Titiwangsa; Setiawangsa; Wangsa Maju; Batu; Kepong; Segambut; Lembah Pantai; Seputeh; Bandar Tun Razak; and Cheras.

After obtaining appropriate approval from the management of Universiti Utara Malaysia (UUM), the questionnaire will be distributed to the targeted respondents via online channels utilizing Google Forms platform. The “link” to the online questionnaire will be shared across the social media such as Facebook, Instagram, Whatsapp, etc. In this manner, the respondents who came across the online questionnaire will most likely help to share it to their friends, creating a snowballing sampling effect. This will ease the overall data collection process and increase the probability of getting a prompt feedback from the respondents. Hence, via this approach, the respondents are said to be selected randomly and conveniently, as indicated in Section 3.5. The questionnaire will continuously be distributed online until the 35 quota samples from each district are received.

Throughout the data collection process, since the questionnaires are randomly distributed, there is also possibility to have encountered respondents without any online purchase experience. In this regard, the data will also be collected and analyzed to find out their respective reasons for not purchasing online.

The participants are given a specific time to complete the questionnaire and the completed responses will automatically be updated and stored in an online database (Google Drive). The data of the questionnaire obtained from the respondents will then be extracted and analyzed using Statistic Package Social Sciences (SPSS) version 25.0.

### 3.10 Data Screening and Analysis

Data screening comprises of two steps: (1) detecting and treating missing data, and (2) checking for normality. The intention of doing this is to identify missing outlier data that may affect the validity of the data (Coakes, 2012). SPSS version 25.0 is employed to identify the patterns and mechanism of missing data and to check the normality at both univariate and multivariate levels. According to Hair *et al.* (2010), Skewness and Kurtosis tests are used to examine the normality, linearity and homoscedasticity. The normality of the research variable is based on the standard of  $\pm 1$  Skewness and  $\pm 1$  Kurtosis (Mishra et al., 2019). In this case, a distribution is called approximate normal if skewness or kurtosis of the data are between the range of  $-1$  and  $+1$ . Similarly, graphical method such as Quantile-Quantile plot (Q-Q Plot) can also be applied to test for normality (Das & Imon, 2016). In this case, if the data is normally distributed, the points in the Q-Q plot will lie on a straight diagonal reference line.

Similarly, SPSS version 25.0 will also be applied to analyze the questionnaire data. The purpose of using SPSS is to assist in descriptive statistics. Descriptive statistical analysis involves data analysis by using mean value and standard deviation. It is a well-recognized approach and is said to be capable of providing clear picture regarding the data collected. In this study, the descriptive statistics techniques, including percentages, means, standard deviations, and frequencies are performed in convenience of researcher to present, organize and describe the measured variables. In this regard, the presented data will include respondents' demographic information, individual online purchasing characteristics and experience such as preferred website, mode of payment and

purchasing product, time spent for online purchase activities, problems encountered in online shopping, and the level of their satisfaction.

Subsequently, Pearson Correlation analysis is also performed to measure the strength and direction of linear relationship between the independent variables (five website quality factors) and dependent variable (customer satisfaction). According to Schober *et al.* (2018), correlation between two variables can further be interpreted as positive correlation and negative correlation. In this regard, positive correlation reflects the relationship between two variables where the increase of one variable will cause an increase to the other variable (same direction). Meanwhile, negative correlation reflects the relationship between two variables where the increase of one variable will cause a decrease to the other variable (opposite direction). The Pearson coefficient, which is commonly abbreviated as “ $r$ ” is a dimensionless measure ranging between  $-1.00$  to  $+1.00$ . Hence, the value of  $r$  equals  $-1.00$  will show a perfect negative correlation while the value of  $r$  equals  $+1.00$  represent a perfect positive correlation. Both values indicate that there is a perfect link between two variables. On the other hand, if there is no relationship between the two variables, the value of  $r$  will be equal to  $0$ . A more specific classification of Pearson coefficient is highlighted in Table 3.7 (Divaris *et al.*, 2012).

In addition, multiple regression analysis is also performed to analyze the predictive relationship between customer satisfaction and one or more website quality factors (Hair *et al.*, 2010). Since this study considers a multidimensional website quality factors, hence there is a high possibility that customer satisfaction can be influenced by two or more factors. In other words, regression analysis is to estimate the changes that could

happen in the dependent variables if there have any changes in independent variables. The findings would allow the researcher to identify which website quality factors is most and least influential on customer satisfaction.

Table 3.7  
*Classification of Pearson Correlation Coefficient*

<b>Pearson Correlation Coefficient</b>	<b>Strength of Correlation</b>
$r \geq 0.8$	Very Strong Correlation
$0.6 \leq r < 0.8$	Strong Correlation
$0.4 \leq r < 0.6$	Moderate Correlation
$0.2 \leq r < 0.4$	Weak Correlation
$r < 0.2$	Very Weak Correlation

Based on regression analysis, to examine the strength of impact of independent variables on dependent variable, there are three parameters that need to be determined: (1) r-square value, (2) analysis of variance (ANOVA) and (3) standardized beta coefficient values. According to Hair *et al.* (2010), r-square value indicates the percentage of dependent variable that can be predicted by the model consisting of independent variables. The higher the percentage of the r-square value, the stronger the predictive power of website quality factors on customer satisfaction. Meanwhile, from the ANOVA table, the F-ratio and p-value (significance value) can be determined. The significance level applied in this study is  $p = 0.05$  (Hair *et al.*, 2010). This means that the result obtained is significant if the generated p-value is less than 0.05 and is insignificant if the generated p-value is greater than 0.05. Lastly, regression coefficients (beta value) indicate the change in the dependent variable for each unit change in the independent variables. The larger the beta value, the stronger the contribution of independent

variables on influencing the dependent variable (Pallant, 2005). Hence, by using regression analysis, strength of impact of website quality factor on customer satisfaction can be determined.

### **3.11 Summary**

In summary, this chapter has presented an overview on how the proposed methodology will be applied to study the current developed research issue. The research framework, formulated hypotheses, research design, operational definition of main variables, population and sampling, instrument, pilot study, reliability, normality, ethical consideration, and data collection and analysis procedures are well presented. This study applied a quantitative cross-sectional survey design to examine the impact of website quality factors on customer satisfaction. A total of 385 samples will be collected from 11 districts in Kuala Lumpur according to non-probability quota sampling technique. The research instrument used in this study is a closed-ended questionnaire (created using Google Form platform) which will be distributed via online channels for data collection. Prior to the actual study, a pilot study considering 30 samples will be conducted for reliability test. SPSS analysis software version 25.0 will be applied to perform descriptive, correlation and regression analysis. The following chapter will present and thoroughly discuss the findings obtained from the analysis performed.



## **CHAPTER 4**

### **RESULTS AND DISCUSSION**

#### **4.0 Introduction**

This chapter mainly discusses on the important findings obtained through data collection and data analysis of the collected questionnaires. The total collected data and samples that are used in the actual study are first stated in this chapter. Next, the results of reliability test for actual study are compared with the pilot study where the differences are analyzed and discussed. The results of normality test are also presented. The demographic characteristics of this study are further presented and discussed with the help of descriptive statistics. The results are shown in the form of descriptive tables, providing clear view to the readers on the data presented. Besides that, the frequency and the percentage are used to describe and explain the demographic characteristics of the respondents. The findings are then presented based on the mean score of the Likert scale used. Lastly, the relationship between the variables are highlighted and thoroughly discussed to address the hypotheses made. A brief conclusion section summarizing all the important points being discussed is provided at the end of the chapter.

#### **4.1 Summary of Collected Samples**

In this study, the questionnaires are distributed to the targeted respondents via online channels, where the “link” to the online questionnaire have been shared across the social media such as Facebook, Instagram and WhatsApp. As a result, a total of 480 completed questionnaires are collected. From the 480 collected questionnaires, 443 of them are the

samples with online purchase experience, while 37 of them are the samples without online purchase experience. However, since this study only required 385 number of samples with online purchase experience (35 samples from each district), hence only 385 out of the total 443 samples are used. The details on the number of the questionnaires collected for this study are provided in Appendix C and meanwhile the corresponding overall summary is shown in Table 4.1.

Table 4.1  
*Overall Summary of the Collected Questionnaire*

Element	Number
Number of Collected Questionnaires (Total)	480
Number of Collected Questionnaires (With online experience)	443 (385 Used)
Number of Collected Questionnaires (Without online experience)	37

#### 4.2 Reliability of Actual Study

This section discusses on the reliability test which has been conducted for the actual study in order to prove and enhance the reliability of the instruments that is used in this study. The resulted Cronbach Alpha's value for each variable and for the overall items are recorded in the Table 4.2.

Based on Table 4.2, all the variables showed improvement in term of the Cronbach Alpha's value as compared to the Cronbach Alpha's value of the pilot study. In fact, the reliability test of actual study should reveal improvement if compared to reliability test of pilot study as the sample size increased. Besides that, the Cronbach Alpha's value of

the reliability test is still greater than the minimum requirement of reliability classification of 0.7. Hence, the Cronbach Alpha's value resulted for the actual study is still acceptable. Therefore, based on all the evidence on reliability test for the actual study, it can be concluded that the instrument used for this study is reliable.

Table 4.2:  
*Reliability Statistic for Actual Study*

<b>Variable</b>	<b>Number of Items</b>	<b>Cronbach's Alpha Value of pilot study</b>	<b>Cronbach's Alpha Value of actual study</b>	<b>Results</b>
Aesthetic	5	0.737	0.875	Accepted
Marketing Mix	5	0.734	0.881	Accepted
Usability	5	0.767	0.864	Accepted
Interactivity	5	0.837	0.840	Accepted
Online Trust	5	0.717	0.865	Accepted
Customer Satisfaction	5	0.875	0.920	Accepted

### 4.3 Normality Test

This section discusses on the normality test which is conducted to check the normality of the sample data collected for actual study. In this regard, two measures are applied: (1) Skewness and Kurtosis, and (2): Quantile-Quantile (Q-Q).

Table 4.3 shows the normality test result obtained from Skewness and Kurtosis analysis which has been conducted on each question under its specific categories in the questionnaire. For a normally distributed data, the Skewness and Kurtosis value should fall within the range of  $\pm 1$ . The results of the analysis are presented according to the six categories involved including Aesthetic, Marketing Mix, Usability, Interactivity, Online Trust and Customer Satisfaction. This is to provide a clear view to the reader regarding the normality of the variables used in the study. From Table 4.3, it is obvious that all the results obtained from the Skewness and Kurtosis analysis are within the acceptable range of  $\pm 1$ , respectively.

In addition, Q-Q plot is also applied to graphically display normality of the variables. In this context, the data is considered to be normally distributed, if the points are located closed to the reference diagonal line ( $y = x$ ). In contrast, the data will not be considered as normally distributed if the points are scattered far away from the line. Figures 4.1 – 4.6 show the Q-Q plots for resulted for each variable. From all the Q-Q plots presented, it can clearly be observed that the data are aligned closely to the reference diagonal line. Hence, as an overall, from the Skewness and Kurtosis analysis, and the Q-Q plots results, it can be confirmed that all the data obtained in this study are normally distributed.

Table 4.3

*Normality Test for Actual Study based on Skewness and Kurtosis*

<b>Variables</b>	<b>Items</b>	<b>Skewness (<math>\pm 1</math>)</b>	<b>Kurtosis (<math>\pm 1</math>)</b>	<b>Normality Assumption</b>
Aesthetics	S3_Q1	- 0.216	- 0.876	Normal
	S3_Q2	- 0.507	0.125	Normal
	S3_Q3	- 0.495	- 0.437	Normal
	S3_Q4	- 0.539	- 0.119	Normal
	S3_Q5	- 0.390	- 0.083	Normal
Marketing Mix	S4_Q1	- 0.363	- 0.192	Normal
	S4_Q2	- 0.255	- 0.438	Normal
	S4_Q3	- 0.502	0.270	Normal
	S4_Q4	- 0.601	- 0.291	Normal
	S4_Q5	- 0.389	- 0.077	Normal
Usability	S5_Q1	- 0.616	0.237	Normal
	S5_Q2	- 0.399	- 0.318	Normal
	S5_Q3	- 0.304	- 0.546	Normal
	S5_Q4	- 0.384	- 0.362	Normal
	S5_Q5	- 0.558	- 0.058	Normal
Interactivity	S6_Q1	- 0.450	- 0.191	Normal
	S6_Q2	- 0.346	- 0.570	Normal
	S6_Q3	- 0.611	- 0.363	Normal
	S6_Q4	- 0.315	- 0.343	Normal
	S6_Q5	- 0.277	- 0.462	Normal
Online Trust	S7_Q1	- 0.276	- 0.428	Normal
	S7_Q2	- 0.271	- 0.307	Normal
	S7_Q3	- 0.276	- 0.390	Normal
	S7_Q4	- 0.397	- 0.001	Normal
	S7_Q5	- 0.527	- 0.287	Normal
Customer Satisfaction	S8_Q1	- 0.225	- 0.642	Normal
	S8_Q2	- 0.176	- 0.580	Normal
	S8_Q3	- 0.152	- 0.783	Normal
	S8_Q4	- 0.008	- 0.816	Normal
	S8_Q5	- 0.308	- 0.369	Normal

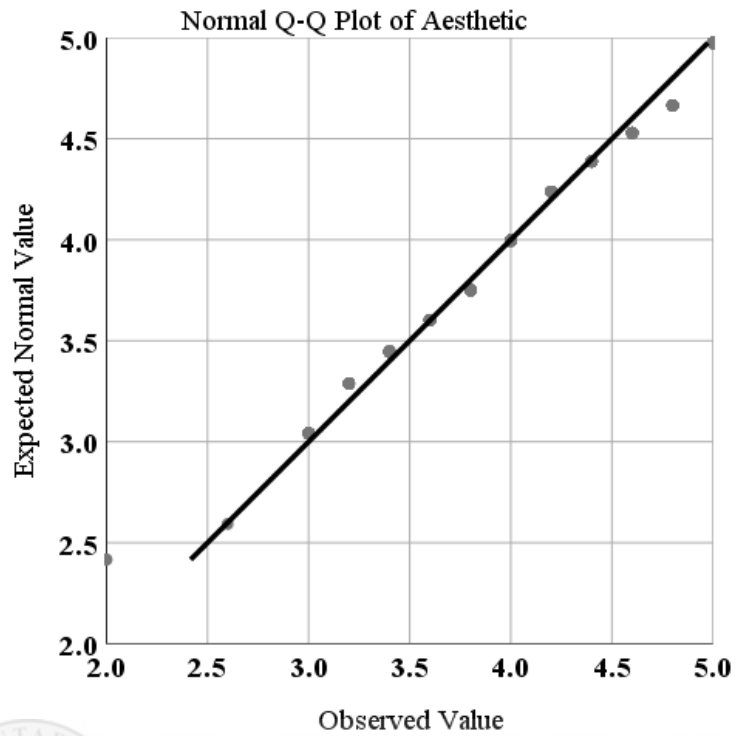


Figure 4.1  
*Q-Q plot for Aesthetics*

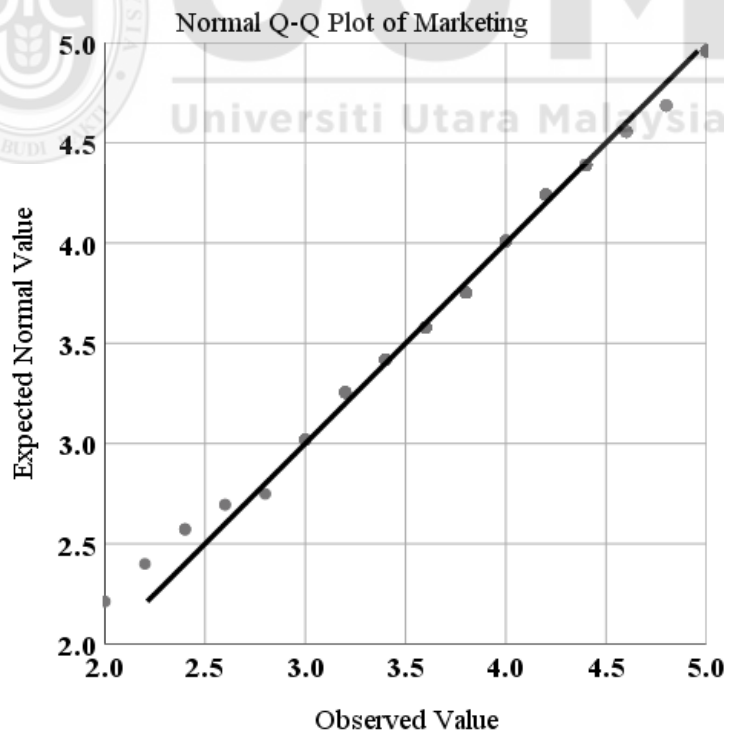


Figure 4.2  
*Q-Q plot for Marketing Mix*

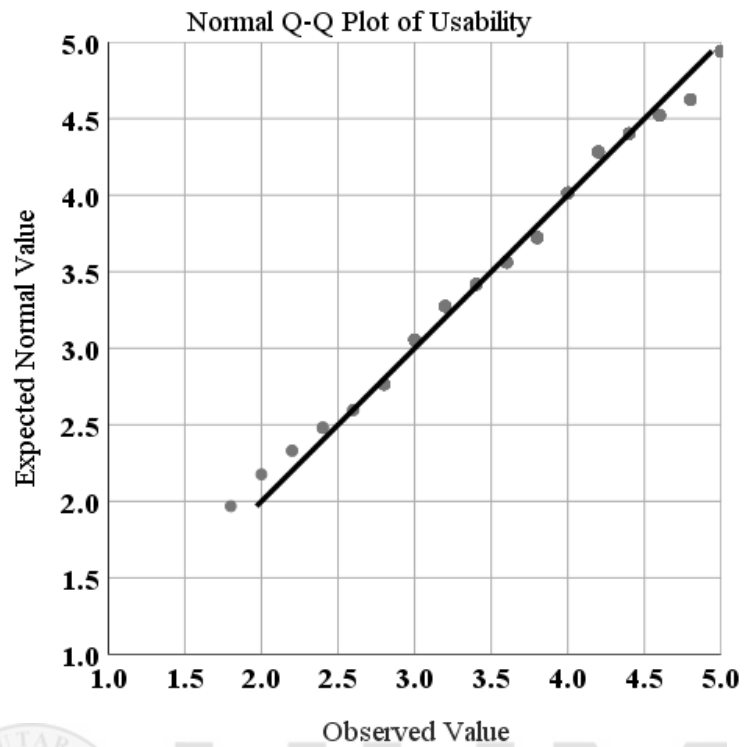


Figure 4.3  
*Q-Q plot for Usability*

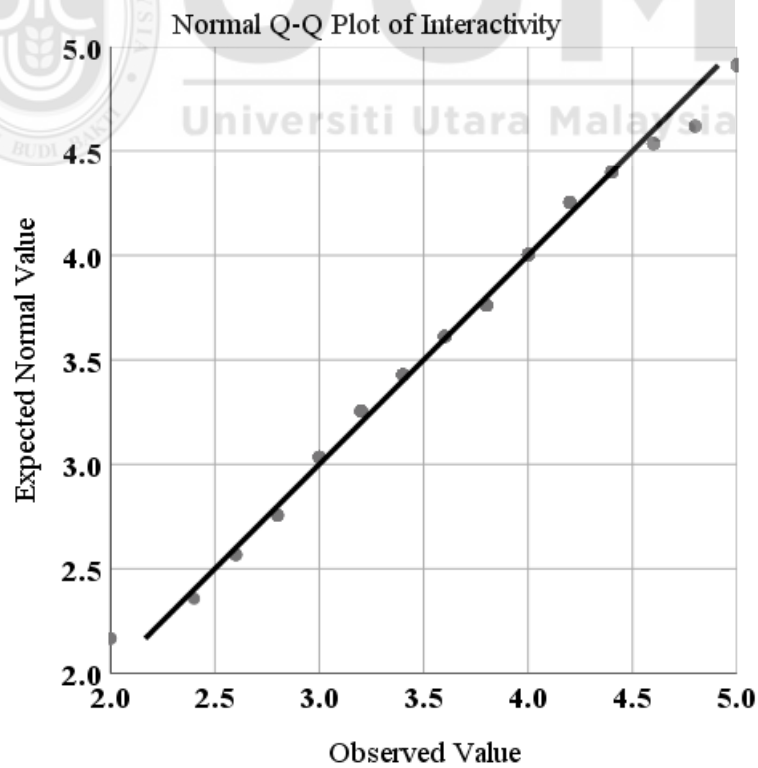


Figure 4.4  
*Q-Q plot for Interactivity*

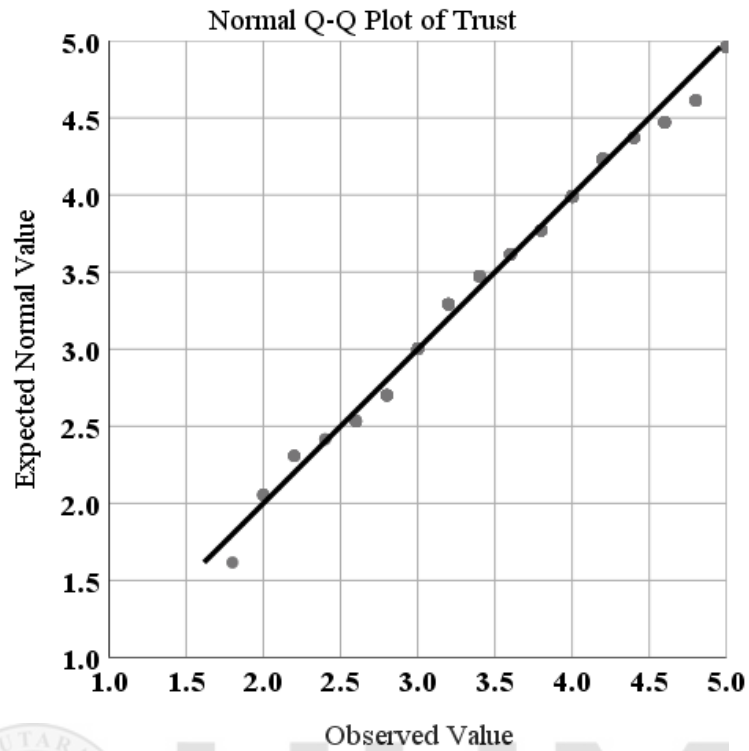


Figure 4.5  
*Q-Q plot for Online Trust*

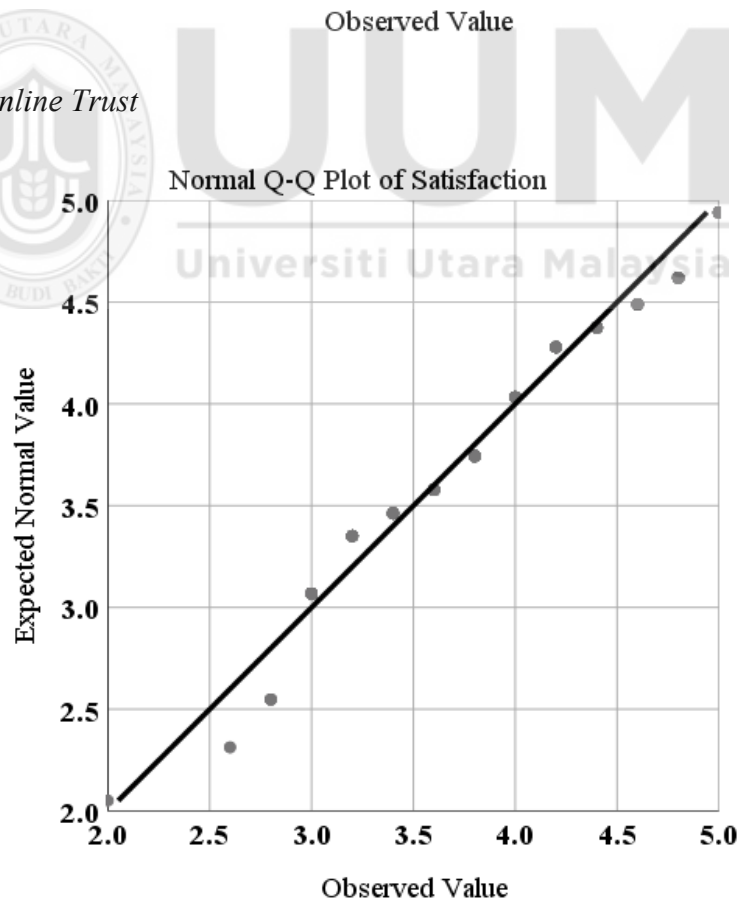


Figure 4.6  
*Q-Q plot for Customer Satisfaction*



#### 4.4 Demographic Profile of Respondent

This section summarizes and discusses on the demographic characteristic of respondents involved in this study. In this aspect, demographic profile of the 385 potential samples is analyzed accordingly and the results are presented in table form. The following table summarizes the background information of the respondents involved in this study. The presented demographic characteristics includes gender, age, ethnicity, living district, marital status, education level, employment status and monthly income.

##### 4.4.1 Gender

As presented in Table 4.4, in terms of gender, the respondents are roughly evenly distributed. Anyhow, the total number of female respondents participated in this study is slightly greater than that of male respondents. There are 191 male (49.6%) and 194 female (50.4%) respondents involved. In other words, this study is dominated by female respondents living in Kuala Lumpur area.

Table 4.4:  
*Distribution of Respondents based on Gender*

Gender	Frequency (N)	Percentage (%)
Male	191	49.6
Female	194	50.4
Total	385	100.0

##### 4.4.2 Age

As presented in Table 4.5, in terms of age, out of 385 respondents who participated in this study, a majority of 190 respondents are aged between 21 – 30 years old. They occupied 49.3% of the total respondent's population. Following next are those aged

between 31 – 40 years old (132 respondents or 34.3%), aged 40 years old and above (55 respondents or 14.3%) and aged 20 years old and below (8 respondents or 2.1%). From the findings, it is revealed that those who have online purchase experience are mostly adult. Only a small minority of them are teenagers.

Table 4.5:  
*Distribution of Respondents based on Age*

Age	Frequency (N)	Percentage (%)
20 years and below	8	2.1
21 – 30 years old	190	49.3
31 – 40 years old	132	34.3
40 years and above	55	14.3
Total	385	100.0

#### 4.4.3 Ethnicity

As presented in Table 4.6, in terms of ethnicity, majority respondents who participated in this study are from Chinese ethnic group (206 respondents or 53.5%), followed by Malay ethnic group (131 respondents or 34.0%), Indian ethnic group (32 respondents or 8.3%), and other minority ethnic groups (16 respondents or 4.2%).

Table 4.6:  
*Distribution of Respondents based on Ethnicity*

Ethnicity	Frequency (N)	Percentage (%)
Malay	131	34.0
Chinese	206	53.5
Indian	32	8.3
Others	16	4.2
Total	385	100.0

#### 4.4.4 Living District

As presented in Table 4.7, there are a total of 11 districts in Federal Territory of Kuala Lumpur. For consistency across the 11 districts, this study fixed the number of respondents (samples) from each district at 35 respondents which corresponds to 9.1%.

Table 4.7:

*Distribution of Respondents based on Living District in Kuala Lumpur*

Living District	Frequency (N)	Percentage (%)
Bukit Bintang	35	9.1
Titiwangsa	35	9.1
Setiawangsa	35	9.1
Wangsa Maju	35	9.1
Batu	35	9.1
Kepong	35	9.1
Segambut	35	9.1
Lembah Pantai	35	9.1
Seputeh	35	9.1
Bandar Tun Razak	35	9.1
Cheras	35	9.1
Total	385	100.0

#### 4.4.5 Marital Status

As presented in Table 4.8, in terms of marital status, out of 385 respondents who participated in this study, a majority of 221 respondents are single, which correspond to 57.4%, followed by those who are married (162 respondents or 42.1%), and there are only two respondents who are single parents (0.5%).

Table 4.8:

*Distribution of Respondents based on Marital Status*

<b>Marital Status</b>	<b>Frequency (N)</b>	<b>Percentage (%)</b>
Single	221	57.4
Married	162	42.1
Single Parent	2	0.5
Total	385	100.0

#### 4.4.6 Education Level

As presented in Table 4.9, in terms of education level, majority respondents who participated in this study indicated that they have obtained a Bachelor degree as their highest education qualification (240 respondents or 62.3%). Following next are those with Master degree (66 respondents or 17.1%), Diploma equivalents (57 respondents or 14.8%), high school or lower (16 respondents or 4.2%) and PhD degree (6 respondents or 1.6%).

Table 4.9:

*Distribution of Respondents based on Education Level*

<b>Education Level</b>	<b>Frequency (N)</b>	<b>Percentage (%)</b>
High School or Lower	16	4.2
Diploma / Certificate / Equivalent	57	14.8
Bachelor Degree	240	62.3
Master Degree	66	17.1
Doctorate / PhD	6	1.6
Total	385	100.0

#### 4.4.7 Employment Status

As presented in Table 4.10, in terms of employment status, out of 385 respondents who participated in this study, a majority of 314 respondents are employed in an organization. They occupied 81.6% of the total respondent's population. Meanwhile, there are 61 respondents (15.8%) who are unemployed and a minority of 10 respondents (2.6%) are self-employed.

Table 4.10:

*Distribution of Respondents based on Employment Status*

Employment Status	Frequency (N)	Percentage (%)
Employed	314	81.6
Self-employed	10	2.6
Unemployed	61	15.8
Total	385	100.0

#### 4.4.8 Monthly Income

As presented in Table 4.11, in terms of monthly income, out of 385 respondents who participated in this study, a majority of 112 respondents (29.1%) earned RM 3,000 and below per month. Meanwhile, there are 96 respondents (24.9%) who earned RM 6,001 and above monthly. Following next are those earning monthly income within the range of RM 3,001 – RM 4,000 (79 respondents or 20.5%) and RM 4,001 – RM 5,000 (55 respondents or 14.3%). Lastly, the remaining 43 respondents (11.2%) earned within the range of RM 5,001 – RM 6,000.

Table 4.11:

*Distribution of Respondents based on Monthly Income*

<b>Monthly Income</b>	<b>Frequency (N)</b>	<b>Percentage (%)</b>
RM 3,000 and below	112	29.1
RM 3,001 – RM 4,000	79	20.5
RM 4,001 – RM 5,000	55	14.3
RM 5,001 – RM 6,000	43	11.2
RM 6,001 and above	96	24.9
Total	385	100.0

#### **4.5 General Online Purchase Experience of Respondents**

This section presents and discusses the findings regarded to general online purchase experience of respondents, where the findings are systematically tabulated for better understanding. The presented information includes their source of awareness, time spent on each purchase, years of purchasing experience, time for last purchase, frequency of purchase, reasons to purchase online, preferred online platform, preferred products, preferred modes of payment and lastly problems encountered during previous purchase.

Table 4.12 shows the source of awareness of respondents on online purchasing. As revealed, majority of respondents (66.5%) get to first know about online purchasing via social media. Besides that, a high percentage also recorded for online advertisement (61.3%) and family / friends (53.8%). This means that social media, online advertisement and family / friends are the main sources of awareness of online purchasing for most respondents. Nevertheless, there are other minor sources that imposed awareness on the respondents regarding online purchasing. For instance, 17.7%

of respondents get their awareness via television, 6.2% via offline advertisement and 4.9% via newspaper.

Table 4.12:

*Source of Awareness of Online Purchasing*

<b>Element</b>	<b>Frequency (N)</b>	<b>Percentage (%)</b>
Social Media	256	66.5
Online Advertisement	236	61.3
Family / Friends	207	53.8
Television	68	17.7
Offline Advertisement	24	6.2
Newspaper	19	4.9

Table 4.13 shows the time spent by respondents daily on online purchasing platform. From the findings, it is revealed that majority respondents (57.1%) willing to spend less than 1 hour daily on using online purchase platform. In the meantime, 29.6% of the respondents stated that they are only willing to spend around 1 – 2 hours daily on online purchase platform. Next, 7.5% and 3.1% of the respondents are willing to spend 2 – 3 hours and 3 – 4 hours daily, respectively on online purchase platform. The remaining 2.6% is occupied by the respondents who are willing to spend more than 4 hours daily on online purchase platform. Hence, it can be concluded that most online shoppers do not spend long time surfing online purchase platform daily (typically less than 2 hours).

Table 4.13:

*Time Spent Daily on Online Purchasing Platform*

Element	Frequency (N)	Percentage (%)
Below 1 hour	220	57.1
1 – 2 hours	114	29.6
2 – 3 hours	29	7.5
3 – 4 hours	12	3.1
Above 4 hours	10	2.6
Total	385	100

Table 4.14 shows the cumulative online experience possessed by the respondents. It is revealed that majority of the respondents (28.3%) have more than four years online purchase experience. Meanwhile, 22.3% of the respondents are found to have 2 – 3 years online purchase experience. This is followed by respondents with 1 – 2 years and less than one year online purchase experience where 19.7% and 19.2% are recorded, respectively. The remaining 10.4% are occupied by the respondents with 3 – 4 years online purchase experience.

Table 4.14:

*Total Cumulative Online Purchasing Experience*

Element	Frequency (N)	Percentage (%)
Below 1 year	74	19.2
1 – 2 years	76	19.7
2 – 3 years	86	22.3
3 – 4 years	40	10.4
Above 4 years	109	28.3
Total	385	100



Table 4.15 shows the total time interval of respondents from their last online purchase. It is revealed that majority respondents shopped online quite regularly where 71.2% of them stated that the last time they purchased online was within 0 – 3 months ago. Following next, 17.7% of the respondents stated that the last time they purchased online was within 3 – 6 months ago. Subsequently, 8.1% of the respondents stated that the last time they purchased online was within 6 – 12 months ago. Nevertheless, minority of the respondents are found to shop online in annual based, where the time interval from their previous purchase is revealed to be within 1 – 2 years (2.6% of respondents) and above two years (0.5% of respondents).

Table 4.15:  
*Total Time Interval from the Previous Purchase*

Element	Frequency (N)	Percentage (%)
0 – 3 months	274	71.2
3 – 6 months	68	17.7
6 – 12 months	31	8.1
1 – 2 years	10	2.6
Above 2 years	2	0.5
Total	385	100

Table 4.16 shows the frequency of online purchase performed by respondents. It is revealed that majority of the respondents make an online purchase in monthly basis where they occupied 42.3% from the total respondent's population. Following next are those who make an online purchase quarterly (22.3%), weekly (14.8%), semi-annually (9.6%), annually (7.3%) and daily (3.6%).

Table 4.16:  
*Frequency of Online Purchasing*

Element	Frequency (N)	Percentage (%)
Daily	14	3.6
Weekly	57	14.8
Monthly	163	42.3
Quarterly	86	22.3
Semi-annually	37	9.6
Annually	28	7.3
Total	385	100

Table 4.17:  
*Reason to Purchase Online*

Element	Frequency (N)	Percentage (%)
Time saving	293	76.1
Best Offers / Discount	235	61.0
Lower Price	231	60.0
No crowds / Avoid Queue	186	48.3
Convenient online platform	182	47.3
Information availability	97	25.2
Buy things without people knowing	87	22.6
Excellent service quality	46	1.9

Table 4.17 shows the reasons given by the respondents to purchase online. Undoubtedly, majority of the respondents prefer to shop online due to the typical reason of time saving, where the highest percentage of 76.1% is recorded. Other common reasons with high percentage score include best offers / discount (61%), lower price (60%), no crowds / avoid queue (48.3%) and due to convenience of online platform (47.3%). Nevertheless, there are also respondents who preferred to shop online due to information availability

on the online platform (25.2%), because they want to make a purchase without people knowing (22.6%) and also because of the excellent service quality of online purchase platform (1.9%).

Table 4.18 shows the list of typical online purchasing platform / website visited by the respondents. Among the available online websites, Lazada is revealed to be the most popular website with the highest percentage score of 75.6%. This is followed by Shopee (66.2%), Alibaba (38.4%), other websites (36.1%), Zalora (23.6%), 11street / PrestoMall (19.2%), Ebay (18.2%) and Amazon (14.0%).

Table 4.18:  
*Preferred Online Purchasing Platform*

Element	Frequency (N)	Percentage (%)
Lazada	291	75.6
Shopee	255	66.2
Alibaba	148	38.4
Others	139	36.1
Zalora	91	23.6
11street / PrestoMall	74	19.2
Ebay	70	18.2
Amazon	54	14.0

Table 4.19 shows the list of typical products purchased by respondents on online purchasing platform. Among the given list of products, fashion apparels are revealed to be the most commonly purchased products with the highest percentage score of 67.3%. This is followed by electronics gadgets (51.9%), other products (37.9%), beauty

products (34.5%), household appliances (34%), groceries (33.5%), books and stationery (29.6%) and hardware tools and materials (23.9%).

Table 4.19:

*Preferred Products on Online Purchasing Platform*

<b>Element</b>	<b>Frequency (N)</b>	<b>Percentage (%)</b>
Fashion apparels	259	67.3
Electronics products / Gadgets	200	51.9
Others	146	37.9
Beauty products	133	34.5
Household appliances	131	34.0
Groceries	129	33.5
Books and stationery	114	29.6
Hardware tools and materials	92	23.9

Table 4.20 shows the modes of payment preferred by respondents when purchase online. It is revealed that online bank transfer is the most preferred mode of payment with the highest percentage score of 78.2%. This is followed by payment via debit / credit card (66.8%) and cash on delivery (41.2%). Lastly, E-wallet is the least utilized mode of payment with the lowest percentage score of 16.4%.

Table 4.20:

*Preferred Modes of Payment*

<b>Element</b>	<b>Frequency (N)</b>	<b>Percentage (%)</b>
Online bank transfer	301	78.2
Debit Card / Credit Card	257	66.8
Cash on delivery	162	42.1
E-wallet	63	16.4

Table 4.21 shows the list of problems which have been encountered by the respondents throughout their online purchasing experience. Undoubtedly, delay in delivery is the most typical problem faced by the respondents, where the highest percentage score of 63.9% is recorded. Following next are poor quality (48.6%), website functionality issues (36.4%), poor tracking system (35.1%), high delivery charges (27.3%), colour variation (18.4%), receive damaged products (14.3%), quantity difference (9.1%), receive wrong products (6%) and product did not arrive at all (5.5%).

Table 4.21:  
*Problems Encountered During Online Purchasing*

Element	Frequency (N)	Percentage (%)
Delay in Delivery	246	63.9
Poor quality	187	48.6
Website functionality issues	140	36.4
Poor tracking systems	135	35.1
High delivery charge	105	27.3
Colour variation	71	18.4
Receive damaged product	55	14.3
Quantity difference	35	9.1
Receive wrong product	23	6.0
Product did not arrive at all	21	5.5

#### 4.6 Mean and Standard Deviation for All Variables

This section summarizes the mean scores of the independent variables (aesthetic, marketing mix, usability, interactivity and online trust) and dependent variable (customer satisfaction). In this aspect, the Likert scale presented in Table 3.2 is revised as Table 4.22, to guide the interpretation of mean score distribution for each studied variable. The result generated from the conducted descriptive analysis, displaying the overall mean score for all the variables is provided in Table 4.23.

Table 4.22:  
*Likert Scale for Mean Score Interpretation*

Scale	Score	Range Coverage
Strongly Disagree	1	1.0000 – 1.9999
Disagree	2	2.0000 – 2.9999
Neutral	3	3.0000 – 3.9999
Agree	4	4.0000 – 4.9999
Strongly Agree	5	5.0000

Table 4.23:  
*Overall Mean Score and Standard Deviation for All Variables*

Variable	N	Mean	Std. Deviation	Minimum	Maximum
Aesthetics	385	4.0951	0.6087	2.00	5.00
Marketing Mix	385	3.9958	0.6060	2.00	5.00
Usability	385	3.9455	0.6717	1.80	5.00
Interactivity	385	3.9787	0.6573	2.00	5.00
Trust	385	3.7875	0.7375	1.80	5.00
Satisfaction	385	3.9688	0.6514	2.00	5.00

According to Table 4.23, the overall mean results indicate that among the five website quality factors, aesthetics is perceived to be the most revealing website quality factor, i.e., by having the highest overall mean score of 4.0951. In contrast, online trust is perceived by the respondents as the weakest attribute of online purchasing website, i.e., by having the lowest mean score of 3.7875. Nevertheless, the mean score of all five website quality factors are revealed to be tended towards and very close (at the edge) to the “agree” side. Similarly, the overall level of satisfaction of respondents towards online purchasing is also revealed to be strongly tended towards the “agree” side, i.e., by having a mean score of 3.9688. Therefore, it can be concluded that the respondents expressed a positive perception towards all the five website quality factors and positive satisfaction towards online purchasing. The following sections describe the mean score recorded for individual item applied in measuring each variable.

#### **4.6.1 Mean and Standard Deviation for Aesthetics Factor**

The mean and standard deviation for all the items applied to measure aesthetics factor is presented in Table 4.24. From the findings, the highest mean score (4.20) is recorded for item 3: “*The display pages within the website are easy to read*”, while the lowest mean score (4.00) is recorded for item 5: “*The website provides a good online store atmosphere*”. Hence, it can be concluded that all the recorded mean scores are within the “agree” range, which indicate a positive perception towards the quality of the website aesthetics factor.

Table 4.24:

*Mean Score and Standard Deviation for Aesthetics Factor*

Items	N	Mean	Std. Deviation
The website displays visually pleasing design.	385	4.04	0.764
The website design is innovative and creative.	385	4.06	0.783
The display pages within the website are easy to read.	385	4.20	0.729
The graphics and pictures of the website capture my attention.	385	4.16	0.736
The website provides a good online store atmosphere.	385	4.00	0.765
Overall Score	385	4.09	0.608

#### 4.6.2 Mean and Standard Deviation for Marketing Mix Factor

The mean and standard deviation for all the items applied to measure marketing mix factor is presented in Table 4.25. From the findings, the highest mean score (4.16) is recorded for item 4: “*Special offer / discount / promotion highlights can easily be noticed*”, while the lowest mean score (3.81) is recorded for item 1: “*The website provides accurate and updated information*”. Hence, it can be concluded that all the recorded mean scores are strongly tended towards the “agree” side, which indicate a positive perception towards the quality of the website marketing mix factor.



Table 4.25:

*Mean Score and Standard Deviation for Marketing Mix Factor*

Items	N	Mean	Std. Deviation
The website provides accurate and updated information.	385	3.81	0.825
The information on the website is relevant to user.	385	3.99	0.739
The price displayed is appropriate, clear and accurate.	385	4.05	0.745
Special offer / discount / promotion highlights can easily be noticed.	385	4.16	0.792
The product features are presented appropriately, and it fulfills user's need.	385	3.97	0.775
Overall Score	385	3.99	0.606

#### 4.6.3 Mean and Standard Deviation for Usability Factor

The mean and standard deviation for all the items applied to measure usability factor is presented in Table 4.26. From the findings, the highest mean score (4.09) is recorded for item 5: *"It is quick and easy to complete a transaction at the website"*, while the lowest mean score (3.83) is recorded for item 1: *"A first-time buyer can make a purchase from the website without much help"*. Hence, it can be concluded that all the recorded mean scores are strongly tended towards the "agree" side, which indicate a positive perception towards the quality of the website usability factor.

Table 4.26:

*Mean Score and Standard Deviation for Usability Factor*

Items	N	Mean	Std. Deviation
A first-time buyer can make a purchase from the website without much help.	385	3.83	0.926
The website can be browsed smoothly and at high speed.	385	3.91	0.843
Navigation on the website is consistent and available on every page.	385	3.93	0.813
Relevant information can be found easily with minimum clicks.	385	3.98	0.789
It is quick and easy to complete a transaction at the website.	385	4.09	0.797
Overall Score	385	3.94	0.671

#### 4.6.4 Mean and Standard Deviation for Interactivity Factor

The mean and standard deviation for all the items applied to measure interactivity factor is presented in Table 4.27. From the findings, the highest mean score (4.14) is recorded for item 2: “*The website provides variety of choices for purchasing decisions*”, while the lowest mean score (3.82) is recorded for item 4: “*It is easy to interact with the website to obtain information tailored to user’s needs*”. Hence, it can be concluded that all the recorded mean scores are strongly tended towards the “agree” side, which indicate a positive perception towards the quality of the website interactivity factor.

Table 4.27:

*Mean Score and Standard Deviation for Interactivity Factor*

Items	N	Mean	Std. Deviation
This website has a search tool that enables user to locate products.	385	4.10	0.764
The website provides variety of choices for purchasing decisions.	385	4.14	0.717
The website provides quick feedback to user about the products and services.	385	3.84	0.906
It is easy to interact with the website to obtain information tailored to user's needs.	385	3.82	0.840
The website has interactive features, which help users to accomplish their task.	385	3.99	0.753
Overall Score	385	3.97	0.657

#### 4.6.5 Mean and Standard Deviation for Online Trust Factor

The mean and standard deviation for all the items applied to measure online trust factor is presented in Table 4.28. From the findings, the highest mean score (3.89) is recorded for item 1: *“The website has adequate security features”*, while the lowest mean score (3.68) is recorded for item 5: *“Warranties / guarantees / return policies are clearly provided”*. All the recorded mean scores are observed to be within the “neutral” range. However, the mean scores are tended towards “agree” side, which indicate a positive perception towards the quality of the website online trust factor.

Table 4.28:

*Mean Score and Standard Deviation for Online Trust Factor*

Items	N	Mean	Std. Deviation
The website has adequate security features.	385	3.89	0.822
Customer privacy is protected at the website.	385	3.74	0.902
Making transactions on the website is safe and secure.	385	3.82	0.885
The “Frequently asked questions” on the website addressed most of user’s online shopping questions.	385	3.81	0.847
Warranties / guarantees / return policies are clearly provided.	385	3.68	1.045
Overall Score	385	3.78	0.737

#### 4.6.6 Mean and Standard Deviation for Customer Satisfaction

The mean and standard deviation for all the items applied to measure customer satisfaction is presented in Table 4.29. From the findings, the highest mean score (4.04) is shared by items 1 and 5: “*As an overall, I am happy with my most recent decision to use online purchasing website for collecting information and order placement*” and “*As an overall, I am satisfied with my online purchase experience*” while the lowest mean score (3.85) is recorded for item 2: “*As an overall, I feel safe when using online purchasing website for collecting information and placing order*”. Hence, it can be concluded that all the recorded mean scores are strongly tended towards the “agree” side, which indicate a positive customer satisfaction towards online purchasing.

In addition, the extent of customer satisfaction of respondents towards online purchasing is also categorized according to living district of respondents to investigate the distribution of satisfaction level across each living district. The analyzed result is presented in Appendix D. From the findings, the highest mean score (4.3143) is showed

by the respondents from Bukit Bintang, followed by the respondents from Wangsa Maju (4.1429), Lembah Pantai (4.0000), Bandar Tun Razak (4.0000), Seputeh (3.9657), Setiawangsa (3.9543), Batu (3.9314), Segambut (3.9029), Cheras (3.8514), Titiwangsa (3.8000) and Kepong (3.7943). Hence, it is revealed that respondents from Bukit Bintang are most satisfied with their online purchasing experience while respondents from Kepong are the least satisfied group. Nevertheless, distribution of all the mean scores is tended more towards the “agree” side which indicates a positive satisfaction level for all the groups. Most importantly, the overall mean score obtained (3.96) indicates that the level of satisfaction (as an overall) revealed in this study is in the range of medium towards high. Therefore, Hypothesis 1 (H1) “Online customers in Kuala Lumpur, Malaysia show positive satisfaction level towards online purchasing.” is strongly supported.

Table 4.29:  
*Mean Score and Standard Deviation for Customer Satisfaction*

Items	N	Mean	Std. Deviation
As an overall, I am happy with my most recent decision to use online purchasing website for collecting information and order placement.	385	4.04	0.731
As an overall, I feel safe when using online purchasing website for collecting information and placing order.	385	3.85	0.800
As an overall, I feel comfortable using online purchasing website.	385	4.02	0.732
As an overall, I am satisfied with the overall quality of online purchasing website.	385	3.89	0.751
As an overall, I am satisfied with my online purchase experience.	385	4.04	0.728
Overall Score	385	3.96	0.651

#### **4.7 Pearson Correlation Analysis**

This section presents and discusses the findings regarded to the relationship between each independent variable (website quality factors: aesthetics, marketing mix, usability, interactivity and online trust) and dependent variable (customer satisfaction). In this aspect, Pearson correlation analysis is performed, as shown in Appendix E to find out the significance / strength of the correlation between the independent variable and dependent variable, and subsequently to test the formulated hypotheses regarded to correlational aspect (either supported or not supported).

According to Appendix E, the value of Pearson correlation between website aesthetics factor and customer satisfaction is revealed to be  $r = 0.611$  (strong correlation), with sig value 0.000 ( $p < 0.01$ , sig. 2-tailed). This indicates a significant positive correlation between website aesthetics factor and customer satisfaction. Therefore, Hypothesis 2 (H2) “The website aesthetics factor is correlated to customer satisfaction towards online purchasing.” is strongly supported.

Next, the value of Pearson correlation between website marketing mix factor and customer satisfaction is revealed to be  $r = 0.636$  (strong correlation), with sig value 0.000 ( $p < 0.01$ , sig. 2-tailed). This indicates a significant positive correlation between website marketing mix factor and customer satisfaction. Therefore, Hypothesis 3 (H3) “The website marketing mix factor is correlated to customer satisfaction towards online purchasing.” is strongly supported.

Subsequently, the value of Pearson correlation between website usability factor and customer satisfaction is revealed to be  $r = 0.635$  (strong correlation), with sig value 0.000 ( $p < 0.01$ , sig. 2-tailed). This indicates a significant positive correlation between website usability factor and customer satisfaction. Therefore, Hypothesis 4 (H4) “The website usability factor is correlated to customer satisfaction towards online purchasing.” is strongly supported.

Following next, the value of Pearson correlation between website interactivity factor and customer satisfaction is revealed to be  $r = 0.725$  (strong correlation), with sig value 0.000 ( $p < 0.01$ , sig. 2-tailed). This indicates a significant positive correlation between website interactivity factor and customer satisfaction. Therefore, Hypothesis 5 (H5) “The website interactivity factor is correlated to customer satisfaction towards online purchasing.” is strongly supported.

Lastly, the value of Pearson correlation between website online trust factor and customer satisfaction is revealed to be  $r = 0.739$  (strong correlation), with sig value 0.000 ( $p < 0.01$ , sig. 2-tailed). This indicates a significant positive correlation between website online trust factor and customer satisfaction. Therefore, Hypothesis 6 (H6) “The website online trust factor is correlated to customer satisfaction towards online purchasing.” is strongly supported. For better presentation of the findings, the result of the hypotheses testing is summarized in Table 4.30.

Table 4.30:

*Hypotheses Test Results based on Pearson Correlation Analysis*

	<b>Hypothesis</b>	<b>Pearson Correlation Value</b>	<b>Sig. (2-tailed) p&lt;0.01</b>	<b>Result</b>
H2	The website aesthetics factor is correlated to customer satisfaction towards online purchasing.	r = 0.611 (strong)	0.000 (significant)	Supported
H3	The website marketing mix factor is correlated to customer satisfaction towards online purchasing.	r = 0.636 (strong)	0.000 (significant)	Supported
H4	The website usability factor is correlated to customer satisfaction towards online purchasing.	r = 0.635 (strong)	0.000 (significant)	Supported
H5	The website interactivity factor is correlated to customer satisfaction towards online purchasing.	r = 0.725 (strong)	0.000 (significant)	Supported
H6	The website online trust factor is correlated to customer satisfaction towards online purchasing.	r = 0.739 (strong)	0.000 (significant)	Supported

Sample Size (N) = 385

Based on the presented findings, it can be confirmed that all the five website quality factors have a significant positive correlation with customer satisfaction. Most importantly, the findings revealed that among the five website quality factors, online trust is the website quality factor that is most correlated to customer satisfaction (indicated by highest value of  $r = 0.739$ ). On the other hand, website aesthetics value is revealed to be the factor that has the least correlation to customer satisfaction (indicated by lowest value of  $r = 0.611$ ).

#### 4.8 Multiple Regression Analysis

This section presents and discusses the findings regarded to the changes on dependent variable (customer satisfaction) in response to the changes that occur in the independent variables (website quality factors: aesthetics, marketing mix, usability, interactivity and



online trust). In this aspect, multiple regression analysis is performed, as shown in Appendix H to find out the predictive strength of each independent variable (predictor) on the dependent variable, when all the five independent variables are applied together in a single regression model. At the same time, it will identify the website quality factor that is most and least influential on customer satisfaction.

Table 4.31 summarizes the important findings obtained from the multiple regression analysis which is performed by considering all independent variables as a group in one regression model. From the findings, it can be observed that the beta and significance values resulted for aesthetics, marketing mix, usability, interactivity and online trust are 0.158 ( $p = 0.000$ ), 0.033 ( $p = 0.502$ ), 0.002 ( $p = 0.962$ ), 0.325 ( $p = 0.000$ ) and 0.416 ( $p = 0.000$ ), respectively. Hence, as a group, the effect of marketing mix and usability on customer satisfaction is revealed to be not significant ( $p > 0.005$ ). Meanwhile, the influential factors on customer satisfaction are only online trust, interactivity, and aesthetics factors, where  $p < 0.005$  is recorded. Another important finding is on the resulted beta values. Note that, a higher beta value indicates a stronger impact of the independent variable towards dependent variable. Based on the recorded beta value, the strongest predictor of customer satisfaction is revealed to be online trust factor and the weakest predictor is usability factor.

Since only online trust, interactivity, and aesthetics factors are revealed to have significant effect on customer satisfaction, hence, Hypothesis 7 (H7) “The website aesthetics, marketing mix, usability, interactivity and online trust factors have significant effect on customer satisfaction towards online purchasing.”, is only partially supported.

Table 4.31:

*Summary of Multiple Regression Analysis for All Predictors of Customer Satisfaction*

Variable (Predictor)	Model Summary	ANOVA		Coefficient	
	r-square	F-value	Sig.	Standardized Beta	Sig.
Aesthetics	0.662	148.368	0.000	0.158	0.000
Marketing Mix				0.033	0.502
Usability				0.002	0.962
Interactivity				0.325	0.000
Online Trust				0.416	0.000
Sample Size (N) = 385					

Furthermore, it can also be observed that the resulted coefficient of determination (r-square value) is 0.662, which is larger compared to the r-square value resulted when the website quality factors are linked individually to customer satisfaction (as shown in Appendix G). This shows that when the five website quality factors as applied as a group, they can explain up to 66.2% variance of customer satisfaction. In addition, from the ANOVA test, a large F-value of 148.368 and significance level of 0.000 which is less than 0.005, indicates that a group of five website quality factors can explain a significant amount of variance on customer satisfaction.

#### 4.9 Summary

This chapter has effectively discussed the important findings obtained from this study. Descriptive statistics utilizing frequency and percentage elements are used to describe the respondent's demographic characteristics and their general online purchase experience. Subsequently, the perception of respondents on the quality of online purchasing website based on the five quality factors has been described. In this aspect,

descriptive statistics utilizing mean, standard deviation and frequency are applied. The findings revealed that the respondents expressed a positive perception towards all the five website quality factors. Furthermore, the level of customer satisfaction has been presented according to living district of the respondents. Similarly, descriptive statistics utilizing mean, standard deviation and frequency are applied. The findings revealed that all the respondents expressed a positive satisfaction towards their online purchasing, with the most satisfied group coming from Bukit Bintang and the least satisfied group coming from Kepong.

Furthermore, Pearson correlation results for hypotheses testing have been described. The findings revealed that all the website quality factors are significantly correlated with customer satisfaction, with the strongest correlation revealed between website online trust factor and customer satisfaction while the weakest correlation revealed between website aesthetics factor and customer satisfaction. Lastly, regression analysis has been performed to study the effect of website quality factors on customer satisfaction. When all the five website quality factors are applied together as a group, the findings revealed that online trust is the strongest predictor of customer satisfaction while usability is the weakest predictor. The final chapter five will conclude and highlight important findings of the work.

## **CHAPTER 5**

### **CONCLUSION AND RECOMMENDATION**

#### **5.0 Introduction**

This chapter first summarizes all the important information presented in the previous chapters. Next, significant findings with respect to the research objectives are highlighted. Based on the findings, several implications according to theoretical and managerial perspective are provided. Subsequently, the limitations of the study are highlighted. Lastly, based on the highlighted limitations, several recommendations are provided to further improve the future studies.

#### **5.1 Summary of the Study**

This study explores the impact (correlation) of perceived website quality on customer satisfaction towards online purchasing in Kuala Lumpur, Malaysia. Hence, the independent variables for this study are the website quality factors (aesthetics, marking mix, usability, interactivity and online trust) while dependent variable is customer satisfaction. While investigating the relationship between the variables, the perception of respondents on the quality of website with respect to the five factors and their level of satisfaction towards online purchasing will also be analyzed. Seven research questions are formulated to address the studied topic.

This is a cross-sectional quantitative study involving the use of closed-ended questionnaires (developed using Google Forms platform) serving as the research instruments to collect data from the targeted respondents. This study only considered 11

districts in Kuala Lumpur, Malaysia and involved a total of 385 samples (35 samples from each district). Before conducting the actual study, a pilot study is conducted with 30 respondents selected randomly in Kuala Lumpur, Malaysia to ensure the reliability of the formulated questionnaires. In this aspect, Cronbach's Alpha value greater than the minimum value of 0.7 is applied. The verified questionnaires are subsequently distributed to the targeted respondents via online channels.

A total of 480 sets of questionnaires are collected: 443 with online purchase experience and 37 without online purchase experience. Out of the 443 collected questionnaires, only 385 of them are applied in the actual study after a screening process. Descriptive, Pearson correlation and regression analyses are performed to answer the formulated research questions and hypotheses. From the findings, positive perception towards all the five website quality factors and positive satisfaction towards online purchasing are recorded, which supported the first hypothesis (H1). Next, the findings from the Pearson correlation analysis have supported the hypotheses H2 – H6, where a significant correlation is revealed between the five website quality factors and customer satisfaction. Finally, from the regression analysis, website online trust factor is revealed as the most influential predictor while website usability factor is the least influential predictor of customer satisfaction. Additionally, since only online trust, interactivity, and aesthetics factors are revealed to have significant effect on customer satisfaction, hence, hypothesis (H7) is only partially supported.

## **5.2 Discussion of Main Findings**

This section will thoroughly discuss the important findings of this study. Note that the discussion is performed in accordance to the seven objectives that have been formulated in Section 1.3.

### **5.2.1 The Level of Customer Satisfaction**

The first objective of this study is to investigate the level of customer satisfaction towards online purchasing. In this aspect, the recorded mean scores (3.85 – 4.04) for all the five items applied to measure customer satisfaction, are strongly tended towards the “agree” side, which indicate a positive customer satisfaction towards online purchasing. In addition, the level of customer satisfaction of respondents towards online purchasing also has been categorized according to living district of respondents to investigate the distribution of satisfaction level across each living district. It is revealed that respondents from Bukit Bintang are most satisfied with their online purchasing experience where the highest mean score (4.3143) is recorded. Meanwhile, respondents from Kepong are the least satisfied group with the least mean score (3.7943). Nevertheless, distribution of mean score across all living districts is tended more towards the “agree” side which indicates a positive satisfaction level for all the groups. In other words, as an overall, the respondents in Kuala Lumpur, Malaysia have expressed a positive satisfaction towards online purchasing. The finding is consistent with Jayasubramanian, Sivasakthi and Priya (2015), where in their study conducted in India, 14% respondents are revealed to be highly satisfied, 76% respondents are satisfied and the remaining 10% respondents are neither satisfied nor dissatisfied.

### **5.2.2 Correlation between Website Aesthetics Factor and Customer Satisfaction**

The second objective of this study is to examine the correlation between website aesthetics factor and customer satisfaction towards online purchasing. In this study, it is revealed that there is a significant positive correlation between website aesthetics factor and customer satisfaction. However, compared to other website quality factors, correlation between website aesthetics factor and customer satisfaction is the weakest. Nevertheless, from multiple regression analysis, website aesthetics factor is a significant predictor of customer satisfaction. Hence, online vendors should not underestimate the importance of aesthetics. In fact, they should focus and work accordingly to develop a website design which is tidy, visually attractive, allowing online shoppers to use the website effectively. The finding is consistent with Lee and Lin (2005), who concluded that website design (referring to content of the website) had a notable effect on customer satisfaction.

### **5.2.3 Correlation between Website Marketing Mix Factor and Customer Satisfaction**

The third objective of this study is to examine the correlation between website marketing mix factor and customer satisfaction towards online purchasing. In this study, it is revealed that there is a significant positive correlation between website marketing mix factor and customer satisfaction, but it have no influence when considered collectively with other variables in this study. This finding is consistent with the study conducted by Nuseir and Madanat (2015). In their study, marketing mix is applied as a single website factor and is revealed to boost satisfaction which eventually leads to loyalty. Hence, the marketing strategy applied also plays an important role in attracting and retaining

customers. Understanding the needs of customers, pricing by considering affordability of the targeted customers and effective communication via appropriate channels are all the elements of marketing mix strategy that brings satisfaction and good reputation.

#### **5.2.4 Correlation between Website Usability Factor and Customer Satisfaction**

The fourth objective of this study is to examine the correlation between website usability factor and customer satisfaction towards online purchasing. In this study, it is revealed that there is a significant positive correlation between website usability factor and customer satisfaction, but once again it have no influence when considered collectively with other variables in this study. This finding is consistent with that of Akrimi and Khemakhem (2014), who found that usability and interactivity are both correlated with of customer satisfaction towards website usage, but usability is less influential as compared to interactivity. Nevertheless, they highlighted the importance of usability where high usability provides better understanding on the content displayed, reduces errors and time spent in finding desired information / performing certain task.

#### **5.2.5 Correlation between Website Interactivity Factor and Customer Satisfaction**

The fifth objective of this study is to examine the correlation between website interactivity factor and customer satisfaction towards online purchasing. In this study, it is revealed that there is a significant positive correlation between website interactivity factor and customer satisfaction. In addition, from the multiple regression analysis, interactivity is a stronger predictor of customer satisfaction as compared to usability.



Similarly, this finding is consistent with that of Akrimi and Khemakhem (2014), who have concluded that among usability and interactivity, interactivity is the main determinant that influence customer satisfaction. They described that high interactivity provides more relevant information and ease decision making, where it eventually improves business-consumer relationship. Hence, other than visually attractive, the online purchasing platform should also be informative, has a simple structure and is quick to complete a task.

#### **5.2.6 Correlation between Website Online Trust Factor and Customer Satisfaction**

The sixth objective of this study is to examine the correlation between website online trust factor and customer satisfaction towards online purchasing. In this study, it is revealed that there is a significant positive correlation between website online trust factor and customer satisfaction. It is also revealed from the multiple regression analysis that among the five website quality factors, online trust is the strongest predictors of customer satisfaction. This finding is consistent with Lee and Lin (2005). Their study was conducted in Taipei, Taiwan to study perceptions of undergraduate students on e-service quality of online shopping and a total of 297 respondents were involved. In the research, five e-service quality dimensions (website design, reliability, responsiveness, trust and personalization) were considered in their study. They found that trust is a strong determinant of e-service performance and the key driver of perceived service quality and customer satisfaction. Therefore, in order to satisfy their customers, online vendors must ensure high security of their online purchasing platform, protect customers

privacy must act with honesty and most important in the best interests of the customers throughout the online purchasing process.

#### **5.2.7 The effect of website aesthetics, marketing mix, usability, interactivity and online trust on customer satisfaction towards online purchasing.**

The seventh objective of this study is to examine the effect of all the five website factors (aesthetics, marketing mix, usability, interactivity and online trust) on customer satisfaction towards online purchasing. From the regression analysis, only online trust, interactivity (website functionality), and aesthetics (website content) factors are revealed to have significant effect on customer satisfaction, while the effect from marketing mix (website content) and usability (website functionality) are revealed to be not significant. Nevertheless, it is important to take note that customer satisfaction is still affected by the quality of website content, functionality, and psychological factors. The strongest impact is contributed by psychological factor focusing on online trust. Once again, this finding is consistent with Lee and Lin (2005) where they concluded that trust is a strong determinant of perceived service quality and customer satisfaction. Next, this study suggests that aesthetics element of website should be given more attention compared to marketing mix element, in the aspect of website content. As reported by Lee and Lin (2005), the beauty of website had a notable effect on customer satisfaction and should not be neglected. Meanwhile, in the aspect of website functionality, interactivity element of website should be given more attention compared to usability element. This finding is consistent with that of Akrimi and Khemakhem (2014), who have concluded that among usability and interactivity, interactivity is a stronger determinant that influences customer satisfaction.

### **5.3 Implication of the Study**

Based on the discussion in Section 5.2, there are few implications that can be acquired from this study. These implications can be discussed according to two perspectives: theoretical and managerial implications.

In theoretical point of view, this study provides additional significant empirical evidence to the existing body of knowledge in the literature of online purchasing, website quality factors and customer satisfaction. Specifically, the descriptive findings of this study enrich the knowledge regarded to the behaviour of online shoppers in Malaysia in terms of their purchasing preferences and frequency of visits / purchasing. The study also provides a statistical view on their typical reasons purchase online, not to purchase online and also the problems faced by them during online purchase. More importantly, the latest perception of online shoppers towards the quality of website in the aspect of aesthetics, marketing mix, usability, interactivity, online trust and their level of satisfaction are also well analyzed. The proposed model provides a good understanding on how the quality of website can be improved to enhance customer satisfaction in online business.

The findings from this study revealed that there is a positive and significant relationship between each of the website quality factors (aesthetics, marketing mix, usability, interactivity, online trust) and satisfaction, and the strongest correlation is revealed between online trust and satisfaction. Online trust which is referring to feeling safe in online transaction and confidentiality of consumers information has always been the main concerns of online shoppers due to increase in the number of scams and cheating

cases. Hence, as expected, online trust is the strongest predictor of customer satisfaction. Another important factor that needs to be emphasized is interactivity. Similar to online trust, interactivity factor displayed a very strong correlation with satisfaction. In online platform, online shoppers cannot physically touch the products or even question a salesperson in face-to-face manner, and this potentially reduces the confidence level of customers towards online purchasing. Therefore, an online platform with effective interaction with the consumers can particularly enhance the confidence, satisfaction and eventually loyalty of the consumers. Based on the findings of this study, online vendors will probably have more information upon designing a competitive online marketing strategy (such as unique advertisements / promotions) and good quality online platform that meets the requirements of online shoppers. In order to retain and attract new customers, effective interaction and safe online environments are the two most significant factors take must be noted by online vendors. However, perhaps most surprising findings from this study are that even though both marketing mix and usability are correlated to customer satisfaction but both variables do not have any effect on customer satisfaction. These findings may indicate that, in terms of website content, customers are showing more concern on the aesthetics element and meanwhile, in terms of website functionality, the customers are showing more concern on the interactivity element.

In managerial point of view, the findings of this study provide an important linkage between Malaysian online vendors and online purchasing platform. The method applied in this study can be utilized by all the online vendors in Malaysian to measure their respective website quality and learn about the latest customer's perception towards their

website and online purchasing trend. In this manner, online vendors will probably get to know about the characteristics of Malaysian online shoppers especially their attitudes / perception / behaviour towards online purchasing and online purchasing patterns / preferences. The knowledge allows online vendors to understand their current position (strengths and weaknesses), gauge their current website quality and subsequently address the key factors of online purchasing that potentially help them to retain existing customers and attract new online shoppers.

As mentioned previously, this study revealed that there is a positive and significant relationship between each of the website quality factors (aesthetics, marketing mix, usability, interactivity, online trust) and customer satisfaction. Website aesthetics is the first impression the online shoppers receive when engaging in an online purchasing platform. Hence, it is important for online vendors to improve the aesthetics value. The aesthetics to improve can be but not limited to graphics, animation, color, fonts and template design. The presentation of the website can either encourage or discourage online shoppers from further surfing the website. Next, online vendors should focus on the quality of marketing mix information displayed on the website itself. These are the sources of information that the online shoppers rely upon to complete an online purchasing process. Hence, it is important to make sure that the marketing mix information is provided in accordance to customer's needs.

The next step to increase quality of the website is by improving the usability and interactivity of the website. Good presentation of website and providing relevant information may be effective in catching attention of online shoppers. However, having

a clear and straightforward structure with quick responses can further enhance the quality for the website. A website with high usability shortens the waiting time of online shoppers and ensures effective online information searching, placing order and payment process. Meanwhile, high interactivity enhances confidence level of the online shoppers towards online purchasing. In this aspect, all elements online shoppers experienced at the website such as information search, navigation, order selection and payment, responsiveness, helpful FAQs and quick responds to customer inquiries are very important so that the customers are confident with the website and eventually satisfied with the website quality.

Lastly, online vendors should focus on the safety and security of their online platforms to safeguard their customers from online scams and cheating. The integrity of online vendors in protecting customers information is also important to gain their trust. This study revealed that online trust is the most important factor that link to satisfaction. Hence, to sustain satisfaction of online shoppers, online vendors should ensure high level of trust and definitely it will require huge efforts as trust is not something that can be acquired in short time.

Anyhow, the findings from this study have revealed that online shoppers in Kuala Lumpur, Malaysia expressed a positive perception and satisfaction towards their online purchase experience. However, this does not indicate that the positive perception can continuously be maintained or sustained, as perception is a very subjective matter that changes by demographic, geographic and security reasons. Hence, online vendors have to continuously acquire up-to-date information regarding purchasing trend of online

shoppers and their perception to be better prepared in formulating a competitive online marketing strategy and good quality online platform that meets the requirements of online shoppers. Positive feelings in the online shoppers should be created prior to their purchase from the website and it should be maintained even after the purchase. By doing so, satisfaction can potentially be sustained and eventually lead to brand loyalty and positive repurchase intentions.

#### **5.4 Recommendations for Future Study**

Based on the limitations considered in this study (refer Section 1.4), possible suggestions to improve future studies are provided. The first limitation considered in this work is regarded to the geographical coverage where this study is conducted only in Kuala Lumpur, Malaysia. Hence, the findings of this study can only explain the behaviour of online shopper in Kuala Lumpur areas. However, perception of online shoppers and their satisfaction towards online purchasing can vary according to geographical areas. Hence, for future studies, it is suggested to cover larger area possibly all the states in Malaysia to enhance accuracy of the findings.

Moreover, due to limited time period, this study considers on website quality as the main factor that affects customer satisfaction towards online purchasing, taking into consideration content, functional and psychological elements of the online purchasing website. Other important factors that may affect customer satisfaction such as brand loyalty, social influences, cultural factors and personal characteristics are not included in this study. Hence, for future studies, it is suggested to explore the aforementioned factors and other relevant factors if possible so that a more comprehensive data can be

added to the literature to help online vendors to better understand their customers. Moreover, it is also suggested to focus on the differences of perceived website quality among information searchers and products buyers to provide a more specific finding.

Furthermore, it is also suggested for future studies to perform validity test to ensure the validity of the applied research instrument (questionnaire). Validity test is essential especially when the set of applied questions is adopted from different sources. When questions are adopted from various sources, there might be issues with the compatibility of the questions. Hence, to make sure that the combination of different set of questions is relevant to the intended research and is able to accurately measure what it is supposed to measure, validity of the constructed questionnaire need to be confirmed by performing factor analysis. Since the main objective of questionnaire in research is to obtain relevant information in most reliable and valid manner, thus the consistency and accuracy of survey/questionnaire forms a significant aspect of research methodology in the form of reliability and validity.

Lastly, this study only applied customer satisfaction as dependent variable. However, previous studies have actually suggested that satisfaction mediates the relationship between quality and post-purchase intention (Lee and Lin, 2005; Donighi and Yousefi, 2015) and customer loyalty (Fecikova, 2004; Hallak et al., 2018). Since, satisfaction is not the final variable to explain characteristics of online shoppers, hence future studies should pay more attention to the moderating effects, for better understanding of the post-purchase behaviour of online shoppers.



## REFERENCES

- Ahmad, R., & Usop, H. (2011). *Conducting research in social sciences, humanities, economics and management studies: A practical guide*. RS Publishing, Kuching.
- Akbar, M.M., & Parvez, N. (2009). Impact of Service Quality, Trust, and Customer Satisfaction on Customers Loyalty. *ABAC Journal*, 29(1), 24-38.
- Akrimi, Y., & Khemakhem, P.R. (2014). An Analysis of Perceived Usability, Perceived Interactivity and Website Personality and their effects on Consumer Satisfaction. *International Journal of Management Excellence*, 2(3), 227-236.
- Aladwani, A. M., & Palvia, P. C. (2002). Developing and validating an instrument for measuring user-perceived web quality. *Information & Management*, 39(6), 467-476.
- Anderson, R. E., & Srinivasan, S. S. (2003). E-satisfaction and e-loyalty: A contingency framework. *Psychology & Marketing*, 20(2), 123-138.
- Armstrong, G., & Kotler, P. (2011). *Marketing: An Introduction* (10th Edition), Upper Saddle River, NJ, Pearson Prentice Hall.
- Azeem, M., & Gondal, M.B. (2011). Prototype Framework: Prototypes, Prototyping And Piloting In Terms Of Quality Insurance. *Academic Research International*, 1(2), 301-307.
- Bai, B., Law, R., & Wen, I. (2008). The impact of website quality on customer satisfaction and purchase intentions: Evidence from Chinese online visitors. *International Journal of Hospitality Management*, 27(3), 391-402.
- Ballantine, P. W. (2005). Effects of interactivity and product information on consumer satisfaction in an online retail setting. *International Journal of Retail and Distribution Management*, 33(6), 461-471.

- Cai, S., & Jun, M. (2003). Internet users' perceptions of online service quality: a comparison of online buyers and information searchers. *Managing Service Quality*, 13(6), 504 – 519.
- Calisir, F., Bayraktaroglu, E.A., Gumussoy, C.A., Topcu, Y.I., & Mutlu, T. (2010). The relative importance of usability and functionality factors for online auction and shopping websites. *Online Information Review*, 34(3): 420–439.
- Chang, H. H., & Chen, S. W. (2008a). The impact of online store environment cues on purchase intention: Trust and perceived risk as a mediator. *Online Information Review*, 32(6), 818-841.
- Chang, H.H., & Chen, S.W. (2008b). The impact of customer interface quality, satisfaction and switching costs on e-loyalty: Internet experience as a moderator. *Computers in Human Behavior*, 24(6), 2927-2944.
- Chang, H.H., Wang, Y.-H., & Yang, W.-Y. (2009). The impact of e-service quality, customer satisfaction and loyalty on e-marketing: Moderating effect of perceived value. *Total Quality Management*, 20(4), 423-443.
- Chen, H.Y., Hsu, C.I., & Lin, C.C. (2010). Website attributes that increase consumer purchase intention: a conjoint analysis. *Journal of Business Research*, 63(9–10), 1007–1014.
- Churchill, G.A., & Suprenant, C. (1992). An investigation the determinant of customer satisfaction. *Journal of Marketing Research*, 19, 491-504.
- Coakes, S.J. (2012). *SPSS Version 20.0 for Windows: Analysis without Anguish*. John Wiley.
- Coker, B. (2013). Antecedents To Website Satisfaction, Loyalty, And Word-Of-Mouth. *Journal of Information Systems and Technology Management*, 10(2), 209-218.
- Constantinides, E. (2004). Influencing the Online Consumer's Behaviour: The Web Experience. *Internet Research*, 14(2), 111-126.

- Cunliffe, D. (2000). Developing usable websites – A review and model. *Internet Research: Electronic Networking Applications and Policy*, 10(2), 295-397.
- Danaher, J.P., Mullarkey, W.G., & Essegiaier, S. (2006). Factors affecting web site visit duration: a cross-domain analysis. *Journal of Marketing Research*, 46(2), 182-94.
- Das, K. R., & Imon, A. H. M. R. (2016). A Brief Review of Tests for Normality. *American Journal of Theoretical and Applied Statistics*, 5(1), 5-12.
- Department of Statistics Malaysia (n.d.). Federal Territory of Kuala Lumpur. Retrieved November 19, 2018, from [https://www.dosm.gov.my/v1/index.php?r=column/cone&menu\\_id=bjRIZXVGdnBueDJKY1BPWEFPRIhIdz09](https://www.dosm.gov.my/v1/index.php?r=column/cone&menu_id=bjRIZXVGdnBueDJKY1BPWEFPRIhIdz09)
- Deshwal, P. (2016). Online advertising and its impact on consumer behavior. *International Journal of Applied Research*, 2(2), 200-204.
- Dillman, D. A. (2007). *Mail and internet surveys: The tailored design method* (2nd ed.). Hoboken, NJ: Wiley & Son, Inc.
- Divaris, K., Vann Jr, W. F., Baker, A. D., & Lee, J. Y. (2012). Examining the accuracy of caregivers' assessments of young children's oral health status. *Journal of American Dental Association*, 143(11), 1237–1247.
- Donighi, S. S., & Yousefi, M. (2015). Impact of service quality and perceived value on post-purchase intention with mediation of customer satisfaction (Case Study: Pharmacies in Tehran, Iran). *European Online Journal of Natural and Social Sciences*, 4(1), 1472-1480.
- Elkhani, N., Soltani, S., & Jamshidi, M.H.M. (2014). Examining a hybrid model for e-satisfaction and e-loyalty to e-ticketing on airline websites. *Journal of Air Transport Management*, 37, 36-44.
- Essays, UK. (2017). Website Attributes On Customer Satisfaction In E-Commerce. Retrieved November 19, 2018 from

<https://www.ukessays.com/essays/ecommerce/website-attributes-customer-satisfaction-4091.php>

- Fecikova, I. (2004). An index method for measurement of customer satisfaction. *The TQM Magazine*, 16(1), 57-66.
- Ferreira, S.M., & Pithan, D.N. (2005). Usability of digital libraries. *OCLC Systems and Services*, 21(4), 311-23.
- Fiore, A. M., Jin, H.-J., & Kim, J. (2005). For fun and profit: Hedonic value from image interactivity and responses toward an online store. *Psychology and Marketing*, 22(8), 669–694.
- Flavian, C., Gurrea, R., & Orus, C. (2009). Web design: a key factor for the website success. *Journal of Systems and Information Technology*, 11(2), 168-184.
- Giese, J. L., & Cote, J. A. (2002). Defining customer satisfaction. *Academy of Marketing Science Review*, 1(1), 1-24.
- Goh, D. (2001). Paypal Reveals Malaysian Online Shopping Trends. Retrieved November 19, 2018, from <https://www.hardwarezone.com.my/tech-news-paypal-reveals-malaysian-online-shopping-trends>
- Gunasekaran, A., Marri, H.B., Gaughey, M.R., & ENebhwani M.D., (2002). E-commerce and its impact on operations management. *International journal of production economics*, 75(1-2), 185-197.
- Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E., (2010). *Multivariate data analysis* (7th ed.). New Jersey: Prentice Hall International, Inc.
- Hallak, R., Assaker, G., & El-Haddad, R. (2018). Re-examining the relationships among perceived quality, value, satisfaction, and destination loyalty: a higher-order structural model. *Journal of Vacation Marketing*, 24(2), 118-135.
- Hanson, W. (2000). *Principles of internet marketing*. Cincinnati, OH: South-Western College Publishing.

- Haque, A., & Khatibi, A. (2007). The Impact of Internet Marketing on Customer Satisfaction: A Study Malaysian Perspectives. *Journal of Mobile Communication*, 1(1), 29-35.
- Helversen, B., Abramczuk, K., Kopec, W., & Nielek, R. (2018). Influence of consumer reviews on online purchasing decisions in older and younger adults. *Decision Support Systems*, 113, 1-10.
- Internet World Stats (2018). World Internet Usage And Population Statistics. Retrieved November 19, 2018, <https://www.internetworldstats.com/stats.htm>
- Isfandyari-Moghaddam, A. (2014). Customer-centric marketing strategies: Tools for building organizational performance. *Journal of Consumer Marketing*, 31(1), 85-86.
- Jayasubramanian, P., Sivasakthi, D., & Priya, A. K. (2015). A Study on Customer Satisfaction towards Online Shopping. *International Journal of Applied Research*, 1(8), 489-495.
- Jeon, M. M., & Jeong, M. (2017). Customers' perceived website service quality and its effects on e-loyalty. *International Journal of Contemporary Hospitality Management*, 29(1), 438-457.
- Jiradilok, T., Malisuwan, S., Madan, N., & Sivaraks, J. (2014). The Impact of Customer Satisfaction on Online Purchasing: A Case Study Analysis in Thailand. *Journal of Economics, Business and Management*, 2(1), 5-11.
- Khare, A., & Rakesh, S. (2011). Antecedents of online shopping behaviour in India: an examination. *Journal of Internet Commerce*, 10(4), 227-244.
- Kim, H. (2005). Developing an index of online customer satisfaction. *Journal of Financial Services Marketing*, 10(1), 49-64.
- Kim, H., & Niehm, L.S. (2009). The Impact of Website Quality on Information Quality, Value, and Loyalty Intentions in Apparel Retailing. *Journal of Interactive Marketing*, 23(3), 221-233.

- Kim, S., & Stoel, L. (2004). Apparel retailers: website quality dimensions and satisfaction. *Journal of Retailing and Consumer Services*, 11(2), 109–117.
- Kingshott, R. P. J. (2006). The impact of psychological contracts upon trust and commitment within supplier–buyer relationships: A social exchange view. *Industrial Marketing Management*, 35, 724–739.
- Kotler, Ph. (2000). *Marketing Management – Millenium Edition*, Prentice Hall, Englewood Cliffs, NJ.
- Kuala Lumpur City Hall (n.d.). Organisation Chart. Retrieved November 19, 2018 from [http://www.dbkl.gov.my/index.php?option=com\\_content&view=article&id=131&Itemid=182&lang=en](http://www.dbkl.gov.my/index.php?option=com_content&view=article&id=131&Itemid=182&lang=en)
- Kuo, P.-J., Zhang, L., & Cranage, D. A. (2015). What you get is not what you saw: exploring the impacts of misleading hotel website photos. *International Journal of Contemporary Hospitality Management*, 27(6), 1301–1319.
- Lee, G. G., & Lin, H. F. (2005). Customer perceptions of e-service quality in online shopping. *International Journal of Retail and Distribution Management*, 33(2), 161–176.
- Lee, Y., & Kozar, K. A. (2006). Investigating the effect of website quality on e-business success: An analytic hierarchy process (AHP) approach. *Decision Support Systems*, 42(3), 1383–1401.
- Li, C. (2014). *Factors influencing customers' choices of online merchants*. (Master's thesis). Retrieved from <https://aaltodoc.aalto.fi/handle/123456789/12838>
- Lim, Y. J., Osman, A., Salahuddin, S. N., Romle, A. R., & Abdullah, S. (2016). Factors Influencing Online Shopping Behavior: The Mediating Role of Purchase Intention. *Procedia Economics and Finance*, 35, 401–410.
- Lin, C.-C., Wu, H.-Y., & Chang, Y.-F. (2011). The critical factors impact on online customer satisfaction. *Procedia Computer Science*, 3, 276–281.

- Lin, H.-F. (2007). The Impact of Website Quality Dimensions on Customer Satisfaction in the B2C E-commerce Context. *Total Quality Management*, 18(4), 363-378.
- Liu, X., He, M., Gao, F., & Xie, P. (2008). An empirical study of online shopping customer satisfaction in China: a holistic perspective. *International Journal of Retail and Distribution Management*, 36(11), 919-940.
- Liu, Y., & Shrum, L.J. (2002). What is interactivity and is it always such a good thing? Implications of definition, person, and situation for the influence of interactivity on advertising effectiveness. *Journal of Advertising*, 31(4), 53-64.
- Liu, Y. (2003). Developing a scale to measure the interactivity of websites. *Journal of Advertising Research*, 43(2), 207-16.
- Ludin, I.H.H., & Cheng, B.L. (2014). Factors Influencing Customer Satisfaction and E-loyalty: Online Shopping Environment among the young adults. *Management Dynamics in the Knowledge Economy*, 2(3), 462-471.
- Madu, C.N., & Madu, A. (2002). Dimensions of e-quality. *International Journal of Quality and Reliability Management*, 19(3), 246-58.
- Mahaputra, M.R. (2017). The Influence of Trust and Customer Value to Customer Satisfaction on Bank BRI Branch Soetomo Jambi. *Saudi Journal of Business and Management Studies*, 2(8), 737-743.
- Mahmoud, M.A., Hinson, R.E., & Adika, M.K. (2018). The Effect of Trust, Commitment, and Conflict Handling on Customer Retention: The Mediating Role of Customer Satisfaction. *Journal of Relationship Marketing*, 0(0), 1-20.
- Mishra, P., Pandey, C. M., Singh, U., Gupta, A., Sahu, C., & Keshri, A. (2019). Descriptive statistics and normality tests for statistical data. *Ann Card Anaesth* 22(1), 67-72.
- Mo, Z., Li, Y.-F., & Fan, P. (2015). Effect of Online Reviews on Consumer Purchase Behavior. *Journal of Service Science and Management*, 8(3), 419-424.

- Mockler, R.J., Dologite, D.G., & Gartenfeld, M.E. (2007). *B2B E-Business*. Electronic Commerce: 1- 9.
- Mohammad, A. (2013). *Strategic Thinking in Jordanian Publicly Quoted Companies* (Doctoral dissertation). Retrieved from <http://eprints.hud.ac.uk/id/eprint/19753/>
- Mohsan, F., Nawaz, M.M., Khan, M.S., Shaukat, Z., & Aslam, N. (2011). Impact of Customer Satisfaction on Customer Loyalty and Intentions to Switch: Evidence from Banking Sector of Pakistan. *International Journal of Business and Social Science*, 2(16), 263-270.
- Momtaaz, H., Islam, M.A., Arifin, K.H.K., & Karim, A. (2010). Customers Satisfaction on Online Shopping in Malaysia. *International Journal of Business and Management*, 6(10), 162-169.
- Monsuwé, T. R., Dellaert, B.G.C., & Ruyter, K. (2004). What drives consumers to shop online? A literature review. *International Journal of Service Industry Management*, 15(1), 102-121.
- Nagesh, S., Ryan, T., & Igbaria, M. (2003). Quality and effectiveness in Web-based customer support systems. *Information and Management*, 40(8), 757-768.
- Nah, F.F.-H., & Davis, S. (2002). HCI Internet research issues in e-commerce. *Journal of Electronic Commerce Research, Special Issue: Human Factors in Web-based Interaction*, 3(3), 98-113.
- Namdeo, S. K., & Rout, S. D. (2016). Calculating and interpreting Cronbach's alpha using Rosenberg assessment scale on pediatrician's attitude and perception on self-esteem. *International Journal of Community Medicine and Public Health*, 3(6), 1371-1374.
- Noronha, A. K., & Rao, P. S. (2017). Effect of Website Quality on Customer Satisfaction and Purchase Intention in Online Travel Ticket Booking Websites. *Management*, 7(5), 168-173.



- Nosrati, L. (2008). *The Impact of Website Quality on Customer Satisfaction. A Research on Iranian Online Bookstores*. (Master's thesis). Retrieved from <https://pdfs.semanticscholar.org/2fdf/b1e7f9445038f0aafaad735ae9f8f4cc4370.pdf>
- Nuseir, M. T., & Madanat, H. (2015). 4Ps: A Strategy to Secure Customers' Loyalty via Customer Satisfaction. *International Journal of Marketing Studies*, 7(4), 78-87.
- Oberiri, A. D. (2016). Impact of Marketing Strategies on Customers' Satisfaction in Nigeria Bottling Company (NBC) Yola Depot (2008-2016). *Journal of Marketing and Consumer Research*, 27, 35-54.
- Oliver, R.L. (1980). A cognitive model of the antecedents and consequences of satisfaction decisions. *Journal of Marketing Research*, 17(4), 460-469.
- Park, Y., Gretzel, U., & Sirakaya-Turk, E. (2007). Measuring web site quality for online travel agencies. *Journal of Travel and Tourism Marketing*, 23(1), 15-30.
- Parasuraman, A., Zeithaml, V. A., & Malhotra, A. (2005). E-S-QUAL: A multiple-item scale for assessing electronic service quality. *Journal of Service Research*, 7(X), 1-21.
- Radhakrishna, R. B. (2007). Tips for developing and testing questionnaires / instruments. *Journal of Extension*, 45(1). Retrieved from <http://www.joe.org/joe/2007february/tt2.php>
- Ramasubbu, N., Mithas, S., & Krishnan, M. (2008). High tech, high touch: The effect of employee skills and customer heterogeneity on customer satisfaction with enterprise system support services. *Decision Support Systems*, 44(2), 509-523.
- Richard, M.O. (2005). Modelling the impact of internet atmospherics on surfer behaviour. *Journal of Business Research*, 58(12), 1632-1642.
- Rodgers, W., Negash, S., & Suk K. (2005). The moderating effect of on-line experience on the antecedents and consequences of on-line satisfaction. *Psychology and Marketing*, 22(4), 313-331.

- Santhi, A.B. (2017). A Study on the Customer Satisfaction towards Online Shopping in Tirupati Town. *IOSR Journal of Business and Management*, 19(6), 12-16.
- Santos, J. R. A. (1999). Cronbach's Alpha: A Tool for Assessing the Reliability of Scales. *Journal of Extension*, 37(2), 1-4.
- Sekaran, U. (2000). *Research methods for business: A skill building approach*. New York: John Wiley & Sons, Inc.
- Spreng, R. A., & Page, T. J., (2003). A test of alternative measures of disconfirmation. *Decision Sciences*, 34(1), 31-62.
- Tandon, U., Kiran, R., & Sah, A. N. (2016a). Customer satisfaction using website functionality, perceived usability and perceived usefulness towards online shopping in India. *Information Development*, 32(5), 1657–1673.
- Tandon, U., Kiran, R., & Sah, A. N. (2016b). Analysing the complexities of website functionality, perceived ease of use and perceived usefulness on customer satisfaction of online shoppers in India. *International Journal of Electronic Marketing and Retailing*, 7(2), 115-140.
- Thelwall, M. (2000). Effective web sites for small and medium-sized enterprises. *Journal of Small Business and Enterprise Development*, 7(2), 149-59.
- Tian, Y., & Stewart, C., (2007). *History of E-commerce*. Electronic Commerce: 1-8.
- Tsang, K. K. (2012). The use of midpoint on Likert Scale: The implications for educational research. *Hong Kong Teachers' Centre Journal*, 11, 121-130. Retrieved November 19, 2018 from [https://www.edb.org.hk/HKTC/download/journal/j11/HKTCJv11\\_11-B02.pdf](https://www.edb.org.hk/HKTC/download/journal/j11/HKTCJv11_11-B02.pdf)
- Trustpilot. (n.d.). Behind every review is an experience that matters. Retrieved November 19, 2018 from <https://www.trustpilot.com>
- Wahab, N. A., Hassan, L. F. A., Shahid, S. A. M., & Maon, S. N. (2016). The Relationship Between Marketing Mix and Customer Loyalty In Hijab Industry:

The Mediating Effect Of Customer Satisfaction. *Procedia Economics and Finance*, 37, 366-371.

Wang, L. W., & Le, Q. L. (2015). Customer Satisfaction towards Online Shopping at Electronics Shopping Malls in Vietnam- A Conceptual Model to Enhance Business Success through Efficient Websites and Logistics Services. *Journal of Stock and Forex Trading*, 5(1), 1-10.

Wang, Y.J., Hernandez, M.D., & Minor, M.S. (2010). Web aesthetics effects on perceived online service quality and satisfaction in an e-tail environment: The moderating role of purchase task. *Journal of Business Research* 63(9-10), 935-942.

Wen, I. (2012). An empirical study of an online travel purchase intention model. *Journal of Travel and Tourism Marketing*, 29(1), 18-39.

Wolfenbarger, M., & Gilly, C.M. (2003). eTailQ: Dimensionalising, measuring and predicting e-tail quality. *Journal of Retailing*, 79(3), 183-198.

Wong, P.-M. W. (2014). The Effects of Website Quality on Customer e-Loyalty: The Mediating Effect of Trustworthiness. *International Journal of Academic Research in Business and Social Sciences*, 4(3), 19-41.

Vilnai-Yavets, I., & Rafaeli, A. (2006). Aesthetics and professionalism of virtual servicescapes. *Journal of Service Research*, 8(3), 245-259.

Xu, X. (2017). *The effects of website quality on customer satisfaction, use intention, and purchase intention: A comparison among three types of booking channels* (Doctoral dissertation). Retrieved from <https://lib.dr.iastate.edu/cgi/viewcontent.cgi?referer=https://www.google.com/&httpsredir=1&article=6474&context=etd>

Yoo, B., & Donthu, N. (2001). Developing a scale to measure the perceived quality of an Internet shopping site (SITEQUAL). *Quarterly Journal of Electronic Commerce*, 2(1), 31-46.

- Yoo, W., Lee, Y., & Park, J. (2010). The role of interactivity in e-tailing: Creating value and increasing satisfaction. *Journal of Retailing and Consumer Services* 17, 89–96.
- Zeithaml, V. A., Bitner, M. J., & Gremler, D. D. (2006). *Service marketing: Integrating customer focus across the firm* (4th ed.). Singapore: McGraw-Hill
- Zhao, M., & Roy Dholakia, R. (2009). A multi - attribute model of web site interactivity and customer satisfaction. *Managing Service Quality: An International Journal*, 19(3), 286 - 307.
- Zikmund, W. G., Babin, B. J., Carr, J. C., & Griffin, M. (2010). *Business research methods* (8th ed.). Mason, HO: Cengage Learning.



## **Appendix A:**

### **Sample Questionnaire**



### **THE IMPACT OF PERCEIVED WEBSITE QUALITY ON CUSTOMER SATISFACTION IN KUALA LUMPUR, MALAYSIA**

Dear Respondents,

I would like to seek for your kind support and participation in a research study entitled “The Impact of Perceived Website Quality on Customer Satisfaction towards Online Purchasing in Kuala Lumpur, Malaysia”. This study is conducted as part of the fulfillment for the degree of Master of Science (Management) from Universiti Utara Malaysia (UUM).

The purpose of this study is to learn about the factors that determine Website Quality and how these factors influences consumer satisfaction. This questionnaire will take approximately 10 minutes of your time to complete. There is no right or wrong answers to the questions provided. Please respond to the questions according to your genuine opinions and experiences.

Your participation in this research study is completely voluntary and there will not be any negative consequences if you decide not to participate. Please be informed that all the information provided in this questionnaire will strictly be treated as confidential and only be used for academic purposes, and your responses to the survey will be completely anonymous.

Thank you in advance for your time and effort in completing this survey. Your kind participation in this study is greatly appreciated and will definitely make this research successful. If you have any questions, please feel free to contact the researcher via email given below.

Regards,

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### **Consent Form**

I hereby confirm that I have met the requirement of living location (Kuala Lumpur, Malaysia) and am capable of acting on behalf of myself as follow:

1. I understand the nature and scope of the study being undertaken.
2. I understand that my participation in this study is completely voluntary.
3. I am free to decline to participate, and may choose to withdraw from the study at any point during the activity, without giving any reasons.
4. I understand that any information I provide will be kept confidential, and used only for the purposes of completing this study.
5. All my questions relating to this study and my participation have been answered to my satisfaction.

☐

By clicking the checkbox, I confirm that I have read and fully understand all the terms and conditions of my participation in the study, and voluntarily agree to participate in this study.

## Respondent Requirement

Have you purchased online before?

☐

YES

☐

NO (*Skip to Question 49*)

## Section 1: Demographic Information

This section is regarding your personal data. Please CHOOSE the most suitable answer.

1. Gender

☐  
☐

Male

Female

2. Age

☐  
☐

20 years old and below

21 – 30 years old

☐  
☐

31 – 40 years old

40 years old and above

3. Ethnicity

☐  
☐

Malay

Chinese

☐  
☐

Indian

Others

4. Living District in Kuala Lumpur

☐  
☐  
☐  
☐  
☐  
☐

Bukit Bintang

Titiwangsa

Setiawangsa

Wangsa Maju

Batu

Kepong

☐  
☐  
☐  
☐  
☐

Segambut

Lembah Pantai

Seputeh

Bandar Tun Razak

Cheras

5. Marital Status

☐  
☐  
☐

Single

Married

Single parent

6. Education Level

<input type="checkbox"/>	High School or lower	<input type="checkbox"/>	Master Degree
<input type="checkbox"/>	Diploma / Certificate / Equivalent	<input type="checkbox"/>	Doctorate / PhD
<input type="checkbox"/>	Bachelor Degree		

7. Employment Status

<input type="checkbox"/>	Employed
<input type="checkbox"/>	Self-employed
<input type="checkbox"/>	Unemployed

8. Monthly Income Range

<input type="checkbox"/>	RM3,000 and below	<input type="checkbox"/>	RM5,001 – RM6,000
<input type="checkbox"/>	RM3,001 – RM4,000	<input type="checkbox"/>	RM6,001 and above
<input type="checkbox"/>	RM4,001 – RM5,000		

**Section 2: General Online Purchase Experience**

In this section, you will be asked about your web experience on online purchasing platform. Please CHOOSE the most suitable answer.

9. How do you first know about online purchasing? *Check all that apply.*

<input type="checkbox"/>	Online advertisement	<input type="checkbox"/>	Newspaper
<input type="checkbox"/>	Offline advertisement	<input type="checkbox"/>	Television
<input type="checkbox"/>	Family / Friends	<input type="checkbox"/>	Social Media

10. How much time would you willing to spend on online purchasing platform daily?

<input type="checkbox"/>	< 1 hour	<input type="checkbox"/>	3 – 4 hours
<input type="checkbox"/>	1 – 2 hours	<input type="checkbox"/>	Above 4 hours
<input type="checkbox"/>	2 – 3 hours		

11. How long have you been purchasing online?

<input type="checkbox"/>	< 1 year	<input type="checkbox"/>	3 – 4 years
<input type="checkbox"/>	1 – 2 years	<input type="checkbox"/>	Above 4 years
<input type="checkbox"/>	2 – 3 years		



12. When was the last time you purchased online?

<input type="checkbox"/>	0 – 3 months
<input type="checkbox"/>	3 – 6 months
<input type="checkbox"/>	6 – 12 months

<input type="checkbox"/>	1 – 2 years
<input type="checkbox"/>	Above 2 years

13. How often do you shop online?

<input type="checkbox"/>	Daily
<input type="checkbox"/>	Weekly
<input type="checkbox"/>	Monthly

<input type="checkbox"/>	Quarterly
<input type="checkbox"/>	Semi-annually
<input type="checkbox"/>	Annually

14. Why do you prefer to purchase online instead of shopping in-store?

*Check all that apply.*

<input type="checkbox"/>	Convenient online platform	<input type="checkbox"/>	Time saving
<input type="checkbox"/>	Buy things without people knowing	<input type="checkbox"/>	Lower Price
<input type="checkbox"/>	No crowds / Avoid Queue	<input type="checkbox"/>	Information availability
<input type="checkbox"/>	Excellent service quality	<input type="checkbox"/>	Best Offers / Discount

15. Which of the following is your preferred online purchasing platform?

*Check all that apply.*

<input type="checkbox"/>	Lazada	<input type="checkbox"/>	Amazon
<input type="checkbox"/>	Shopee	<input type="checkbox"/>	Ebay
<input type="checkbox"/>	Alibaba	<input type="checkbox"/>	Zalora
<input type="checkbox"/>	11street (PrestoMall)	<input type="checkbox"/>	Others

16. What products do you normally purchase online?

*Check all that apply.*

<input type="checkbox"/>	Fashion apparels	<input type="checkbox"/>	Books and stationery
<input type="checkbox"/>	Hardware tools and materials	<input type="checkbox"/>	Household appliances
<input type="checkbox"/>	Electronics products / Gadgets	<input type="checkbox"/>	Beauty products
<input type="checkbox"/>	Groceries	<input type="checkbox"/>	Others

17. What are the modes of payment you preferred for online purchasing?  
*Check all that apply.*

<input type="checkbox"/>	Cash on delivery
<input type="checkbox"/>	Online bank transfer
<input type="checkbox"/>	Debit Card / Credit Card
<input type="checkbox"/>	E-wallet

18. Please indicate any problems that you have encountered during your previous online purchase experience. *Check all that apply.*

<input type="checkbox"/>	Website functionality issues	<input type="checkbox"/>	High delivery charge
<input type="checkbox"/>	Receive wrong product	<input type="checkbox"/>	Delay in Delivery
<input type="checkbox"/>	Receive damaged product	<input type="checkbox"/>	Poor tracking systems
<input type="checkbox"/>	Product did not arrive at all	<input type="checkbox"/>	Colour variation
<input type="checkbox"/>	Poor quality	<input type="checkbox"/>	Quantity difference

### Section 3: Website Aesthetic Experience

In this section, you will be asked about your online purchase experience with special focus on website aesthetic values. On the scale of 1 to 5, please indicate the extent to which your online experience fulfills the following statements.

1	2	3	4	5
Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

19	The website displays visually pleasing design.	1	2	3	4	5
20	The website design is innovative and creative.	1	2	3	4	5
21	The display pages within the website are easy to read.	1	2	3	4	5
22	The graphics and pictures of the website capture my attention.	1	2	3	4	5
23	The website provides a good online store atmosphere.	1	2	3	4	5

### Section 4: Website Marketing Mix Experience

In this section, you will be asked about your online purchase experience with special focus on website marketing mix. On the scale of 1 to 5, please indicate the extent to which your online experience fulfills the following statements.

1	2	3	4	5
Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

24	The website provides accurate and updated information.	1	2	3	4	5
25	The information on the website is relevant to user.	1	2	3	4	5
26	The price displayed is appropriate, clear and accurate.	1	2	3	4	5
27	Special offer / discount / promotion highlights can easily be noticed.	1	2	3	4	5
28	The product features are presented appropriately, and it fulfills user's need.	1	2	3	4	5

### Section 5: Website Usability Experience

In this section, you will be asked about your online purchase experience with special focus on website usability. On the scale of 1 to 5, please indicate the extent to which your online experience fulfills the following statements.

1	2	3	4	5
Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

29	A first-time buyer can make a purchase from the website without much help.	1	2	3	4	5
30	The website can be browsed smoothly and at high speed.	1	2	3	4	5
31	Navigation on the website is consistent and available on every page.	1	2	3	4	5
32	Relevant information can be found easily with minimum clicks.	1	2	3	4	5
33	It is quick and easy to complete a transaction at the website.	1	2	3	4	5

### Section 6: Website Interactivity Experience

In this section, you will be asked about your online purchase experience with special focus on website interactivity. On the scale of 1 to 5, please indicate the extent to which your online experience fulfills the following statements.

1	2	3	4	5
Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

34	This website has a search tool that enables user to locate products.	1	2	3	4	5
35	The website provides variety of choices for purchasing decisions.	1	2	3	4	5
36	The website provides quick feedback to user about the products and services.	1	2	3	4	5
37	It is easy to interact with the website to obtain information tailored to user's needs.	1	2	3	4	5
38	The website has interactive features, which help users to accomplish their task.	1	2	3	4	5

### Section 7: Online Trust Experience

In this section, you will be asked about your online purchase experience with special focus on online trust. On the scale of 1 to 5, please indicate the extent to which your online experience fulfills the following statements.

1	2	3	4	5
Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

39	The website has adequate security features.	1	2	3	4	5
40	Customer privacy is protected at the website.	1	2	3	4	5
41	Making transactions on the website is safe and secure.	1	2	3	4	5
42	The "Frequently asked questions" on the website addressed most of user's online shopping questions.	1	2	3	4	5
43	Warranties / guarantees / return policies are clearly provided.	1	2	3	4	5

### Section 8: Level of Satisfaction

In this section, you will be asked about your overall satisfaction towards online purchasing. On the scale of 1 to 5, please indicate the best score to describe the following statements.

1	2	3	4	5
Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

44	As an overall, I am happy with my most recent decision to use online purchasing website for collecting information and order placement.	1	2	3	4	5
45	As an overall, I am happy with my most recent decision to use online purchasing website for collecting information and order placement.	1	2	3	4	5
46	As an overall, I feel comfortable using online purchasing website.	1	2	3	4	5
47	As an overall, I am satisfied with the overall quality of online purchasing website.	1	2	3	4	5
48	As an overall, I am satisfied with my online purchase experience.	1	2	3	4	5

#### Online Purchase Concerns

49. Why are you not purchasing online?

*Check all that apply.*

- |                          |   |
|--------------------------|---|
| <input type="checkbox"/> | It is expensive to buy online.  |
| <input type="checkbox"/> | I am not aware of online purchasing website.  |
| <input type="checkbox"/> | No purchase guarantees.   |
| <input type="checkbox"/> | Poor website design.  |
| <input type="checkbox"/> | The process of online shopping is too complex.  |
| <input type="checkbox"/> | I cannot find what I look for.  |
| <input type="checkbox"/> | Poor delivery services.   |
| <input type="checkbox"/> | Poor quality products.  |
| <input type="checkbox"/> | I feel insecure paying for something but need to wait days or weeks to get the product. |
| <input type="checkbox"/> | Fears of fraud and not confident with the security of online transaction.               |
| <input type="checkbox"/> | I do not like to give out personal information.   |
| <input type="checkbox"/> | cannot be sure that the website I am dealing with is a real store.                      |

**Appendix B:**  
**Reliability Statistic for Pilot Study**

<b>Aesthetic</b>			<b>Marketing Mix</b>		
Reliability Statistics			Reliability Statistics		
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items	Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.737	.750	5	.734	.736	5

<b>Usability</b>			<b>Interactivity</b>		
Reliability Statistics			Reliability Statistics		
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items	Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.767	.767	5	.837	.847	5

<b>Online Trust</b>			<b>Customer Satisfaction</b>		
Reliability Statistics			Reliability Statistics		
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items	Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.717	.714	5	.875	.872	5

Based on the reliability statistics presented, it is clear that the value of Cronbach's Alpha obtained for all the variables are greater than the minimum reliability requirement (Cronbach's Alpha > 0.7). Hence, it can be concluded that the instrument applied for data collection in this study is reliable.

## Appendix C:

### Summary of the Respondents in Pilot Study and Actual Study

#### a) Pilot Study

Kuala Lumpur District	Number of questionnaires	
	Collected	Applied in this study
Randomly Collected in Kuala Lumpur Districts	30	30
Total		30

#### b) Actual Study

Kuala Lumpur District	Number of questionnaires		
	Collected	Analyzed in this study	
		With Experience	Without Experience
Bukit Bintang	43	35	N/A
Titiwangsa	36	35	N/A
Setiawangsa	37	35	N/A
Wangsa Maju	45	35	N/A
Batu	39	35	N/A
Kepong	38	35	N/A
Segambut	40	35	N/A
Lembah Pantai	38	35	N/A
Seputeh	35	35	N/A
Bandar Tun Razak	37	35	N/A
Cheras	55	35	N/A
N/A	37	N/A	37
Total	480	385	37

## Appendix D:

### Extent of Customer Satisfaction According to Each Living District

Living District		Satisfaction	Living District		Satisfaction
Bukit Bintang	Mean	4.3143	Segambut	Mean	3.9029
	N	35		N	35
	Std. Deviation	0.4809		Std. Deviation	0.6832
Titiwangsa	Mean	3.8000	Lembah Pantai	Mean	4.0000
	N	35		N	35
	Std. Deviation	0.6686		Std. Deviation	0.6544
Setiawangsa	Mean	3.9543	Seputeh	Mean	3.9657
	N	35		N	35
	Std. Deviation	0.7325		Std. Deviation	0.5769
Wangsa Maju	Mean	4.1429	Bandar Tun Razak	Mean	4.0000
	N	35		N	35
	Std. Deviation	0.6427		Std. Deviation	0.6453
Batu	Mean	3.9314	Cheras	Mean	3.8514
	N	35		N	35
	Std. Deviation	0.5779		Std. Deviation	0.6848
Kepong	Mean	3.7943	Total	Mean	3.9688
	N	35		N	385
	Std. Deviation	0.6936		Std. Deviation	0.6514



## Appendix E

### Pearson Correlation Analysis for Independent and Dependent Variables

		Aesthetics	Marketing Mix	Usability	Interactivity	Trust	Satisfaction
Aesthetics	Pearson Correlation	1	.667**	.585**	.637**	.535**	.611**
	Sig. (2-tailed)		.000	.000	.000	.000	.000
	N	385	385	385	385	385	385
Marketing Mix	Pearson Correlation	.667**	1	.689**	.678**	.662**	.636**
	Sig. (2-tailed)	.000	-	.000	.000	.000	.000
	N	385	385	385	385	385	385
Usability	Pearson Correlation	.585**	.689**	1	.764**	.647**	.635**
	Sig. (2-tailed)	.000	.000	-	.000	.000	.000
	N	385	385	385	385	385	385
Interactivity	Pearson Correlation	.637**	.678**	.764**	1	.662**	.725**
	Sig. (2-tailed)	.000	.000	.000	-	.000	.000
	N	385	385	385	385	385	385
Trust	Pearson Correlation	.535**	.662**	.647**	.662**	1	.739**
	Sig. (2-tailed)	.000	.000	.000	.000	-	.000
	N	385	385	385	385	385	385
Satisfaction	Pearson Correlation	.611**	.636**	.635**	.725**	.739**	1
	Sig. (2-tailed)	.000	.000	.000	.000	.000	-
	N	385	385	385	385	385	385

\*\* . Correlation is significant at the 0.01 level (2-tailed).

## Appendix F:

### Typical Reasons Given by Respondents for Not Purchasing Online

Element	Frequency (N)	Percentage (%)
It is expensive to buy online.	3	8.1
I am not aware of online purchasing website.	6	16.2
No purchase guarantee	9	24.3
Poor website design.	0	0
The process of online shopping is too complex.	4	10.8
I cannot find what I look for.	1	2.7
Poor delivery services.	2	5.4
Poor quality products.	2	5.4
I feel insecure paying for something but need to wait days or weeks to get the product.	14	37.8
Fears of fraud and not confident with the security of online transaction.	18	48.6
I do not like to give out personal information.	7	18.9
I cannot be sure that the website I am dealing with is a real store.	8	21.6
It is expensive to buy online.	3	8.1
I am not aware of online purchasing website.	6	16.2

This descriptive analysis is performed by using the 37 samples collected for those respondents without online purchasing experience. It is revealed that “fears of fraud and not confident with the security of online transaction” and “I feel insecure paying for something but need to wait days or weeks to get the product”, are the two main reasons that prevent them from purchase online, where a high percentage score of 48.6% and 37.8% are recorded, respectively. These are the main concerns of the respondents for not purchasing online. On the other hand, the lowest percentage of 2.7% is recorded for the reason “I cannot find what I look for”. Nevertheless, none of the respondents select the reason “poor website design” for not purchasing online.

## Appendix G:

### Regression Analysis Considering Individual Predictor

a) Aesthetics

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.611 <sup>a</sup>	.373	.371	.51653
a. Predictors: (Constant), Aesthetics				

ANOVA <sup>a</sup>						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	60.798	1	60.798	227.873	.000 <sup>b</sup>
	Residual	102.188	383	.267		
	Total	162.986	384			
a. Dependent Variable: Satisfaction						
b. Predictors: (Constant), Aesthetics						

Coefficients <sup>a</sup>						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.292	.179		7.209	.000
	Aesthetics	.654	.043	.611	15.095	.000
a. Dependent Variable: Satisfaction						

b) Marketing Mix

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.636 <sup>a</sup>	.404	.403	.50353
a. Predictors: (Constant), Marketing Mix				

ANOVA <sup>a</sup>						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	65.878	1	65.878	259.830	.000 <sup>b</sup>
	Residual	97.108	383	.254		
	Total	162.986	384			
a. Dependent Variable: Satisfaction						
b. Predictors: (Constant), Marketing Mix						

Coefficients <sup>a</sup>					
Model		Unstandardized Coefficients		Standardized Coefficients	Sig.
		B	Std. Error	Beta	
1	(Constant)	1.238	.171		.000
	Marketing Mix	.683	.042	.636	.000
a. Dependent Variable: Satisfaction					

c) Usability

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.635 <sup>a</sup>	.403	.402	.50399
a. Predictors: (Constant), Usability				

ANOVA <sup>a</sup>						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	65.703	1	65.703	258.674	.000 <sup>b</sup>
	Residual	97.282	383	.254		
	Total	162.986	384			
a. Dependent Variable: Satisfaction						
b. Predictors: (Constant), Usability						

Coefficients <sup>a</sup>					
Model		Unstandardized Coefficients		Standardized Coefficients	Sig.
		B	Std. Error	Beta	
1	(Constant)	1.539	.153		.000
	Usability	.616	.038	.635	.000
a. Dependent Variable: Satisfaction					

d) Interactivity

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.725 <sup>a</sup>	.526	.524	.44934
a. Predictors: (Constant), Interactivity				

ANOVA <sup>a</sup>						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	85.657	1	85.657	424.253	.000 <sup>b</sup>
	Residual	77.328	383	.202		
	Total	162.986	384			
a. Dependent Variable: Satisfaction						
b. Predictors: (Constant), Interactivity						

Coefficients <sup>a</sup>					
Model		Unstandardized Coefficients		Standardized Coefficients	Sig.
		B	Std. Error	Beta	
1	(Constant)	1.110	.141		.000
	Interactivity	.718	.035	.725	.000
a. Dependent Variable: Satisfaction					

e) Online Trust

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.739 <sup>a</sup>	.546	.545	.43960
a. Predictors: (Constant), Online Trust				

ANOVA <sup>a</sup>						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	88.971	1	88.971	460.387	.000 <sup>b</sup>
	Residual	74.015	383	.193		
	Total	162.986	384			
a. Dependent Variable: Satisfaction						
b. Predictors: (Constant), Online Trust						

Coefficients <sup>a</sup>					
Model		Unstandardized Coefficients		Standardized Coefficients	Sig.
		B	Std. Error	Beta	
1	(Constant)	1.497	.117		.000
	Online Trust	.653	.030	.739	.000
a. Dependent Variable: Satisfaction					

**Appendix H:**  
**Multiple Regression Analysis Considering All Predictors**

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.814 <sup>a</sup>	.662	.657	.38133
a. Predictors: (Constant), Aesthetics, Marketing Mix, Usability, Interactivity, Online Trust				

ANOVA <sup>a</sup>						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	107.874	5	21.575	148.368	.000 <sup>b</sup>
	Residual	55.112	379	.145		
	Total	162.986	384			
a. Dependent Variable: Satisfaction						
b. Predictors: (Constant), Aesthetics, Marketing Mix, Usability, Interactivity, Online Trust						

Coefficients <sup>a</sup>						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.453	.146		3.112	.002
	Aesthetics	.169	.046	.158	3.697	.000
	Marketing Mix	.035	.053	.033	.672	.502
	Usability	.002	.049	.002	.047	.962
	Interactivity	.322	.052	.325	6.245	.000
	Online Trust	.367	.039	.416	9.469	.000
a. Dependent Variable: Satisfaction						